



Pension Savings: The Real Return 2021 Edition

A Research Report by BETTER FINANCE

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Acronyms

AIF Alternative Investment Fund
AMC Annual Management Charges
AuM Assets under Management

BE Belgium
BG Bulgaria
Bln Billion

BPETR 'Barclay's Pan-European High Yield Total Return' Index

CAC 40 'Cotation Assistée en Continu 40' Index

CMU Capital Markets Union

DAX 30 'Deutsche Aktieindex 30' Index

DB Defined Benefit plan
DC Defined Contribution plan

DE Germany

DG Directorate General of the Commission of the European Union

DK Denmark

DWP United Kingdom's Governmental Agency Department for Work and Pensions

EBA European Banking Authority

EE Estonia

EEE Exempt-Exempt-Exempt Regime
EET Exempt-Exempt-Tax Regime
ETF Exchange-Traded Fund

EIOPA European Insurance and Occupational Pensions Authority

ES Spain

ESAs European Supervisory Authorities

ESMA European Securities and Markets Authority

EU European Union

EURIBOR Euro InterBank Offered Rate

EX Executive Summary

FR France

FSMA Financial Services and Market Authority (Belgium)

FSUG Financial Services Users Group - European Commission's Expert Group

FTSE 100 The Financial Times Stock Exchange 100 Index

FW Foreword

GDP Gross Domestic Product

HICP Harmonised Indices of Consumer Prices



IBEX 35 Índice Bursátil Español 35 Index

IKZE 'Indywidualne konto zabezpieczenia emerytalnego' – Polish specific Individual pension

savings account

IRA United States specific Individual Retirement Account

IT Italy

JPM J&P Morgan Indices

KIID Key Investor Information Document

LV Latvia

NAV Net Asset Value

Mln Million

MSCI Morgan Stanley Capital International Indices

NL Netherlands

OECD The Organisation for Economic Co-Operation and Development

OFT United Kingdom's Office for Fair Trading

PAYG Pay-As-You-Go Principle

PIP Italian specific 'Individual Investment Plan'

PL Poland

PRIIP(s) Packaged Retail and Insurance-Based Investment Products

RO Romania

S&P Standard & Poor Indexes

SE Sweden SK Slovakia

SME Small and Medium-sized Enterprise

SPIVA Standard & Poor Dow Jones' Indices Research Report on Active Management performances

Scorecard

TEE Tax-Exempt-Exempt Regime

TCR/TER Total Cost Ratio/ Total Expense Ratio

UCITS Undertakings for the Collective Investment of Transferable Securities

UK United Kingdom



Glossary of terms

Accrued benefits* – is the amount of accumulated pension benefits of a pension plan member on the basis of years of service.

Accumulated assets* – is the total value of assets accumulated in a pension fund.

Active member* – is a pension plan member who is making contributions (and/or on behalf of whom contributions are being made) and is accumulating assets.

AIF(s) – or Alternative Investment Funds are a form of collective investment funds under E.U. law that do not require authorization as a UCITS fund.¹

Annuity* – is a form of financial contract mostly sold by life insurance companies that guarantees a fixed or variable payment of income benefit (monthly, quarterly, half-yearly, or yearly) for the life of a person(s) (the annuitant) or for a specified period of time. It is different than a life insurance contract which provides income to the beneficiary after the death of the insured. An annuity may be bought through instalments or as a single lump sum. Benefits may start immediately or at a predefined time in the future or at a specific age.

Annuity rate* – is the present value of a series of payments of unit value per period payable to an individual that is calculated based on factors such as the mortality of the annuitant and the possible investment returns.

Asset allocation* – is the act of investing the pension fund's assets following its investment strategy.

Asset management* – is the act of investing the pension fund's assets following its investment strategy.

Asset manager* – is(are) the individual(s) or entity(ies) endowed with the responsibility to physically invest the pension fund assets. Asset managers may also set out the investment strategy for a pension fund.

Average earnings scheme* – is a scheme where the pension benefits earned for a year depend on how much the member's earnings were for the given year.

Basic state pension* – is a non-earning related pension paid by the State to individuals with a minimum number of service years.

Basis points (bps) – represent the 100th division of 1%.

Benchmark (financial) – is a referential index for a type of security. Its aim is to show, customized for a level and geographic or sectorial focus, the general price or performance of the market for a financial instrument.

 $^{^1}$ See Article 4(1) of Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010, OJ L 174, 1.7.2011, p. 1–73.



Beneficiary* – is an individual who is entitled to a benefit (including the plan member and dependants).

Benefit* – is a payment made to a pension fund member (or dependants) after retirement.

Bonds – are instruments that recognize a debt. Although they deliver the same utility as bank loans, i.e., enabling the temporary transfer of capital from one person to another, with or without a price (interest) attached, bonds can also be issued by non-financial institutions (States, companies) and by financial non-banking institutions (asset management companies). In essence, bonds are considered more stable (the risk of default is lower) and in theory deliver a lower, but fixed, rate of profit. Nevertheless, Table EX2 of the Executive Summary shows that the aggregated European Bond Index highly overperformed the equity one.

Closed pension funds* – are the funds that support only pension plans that are limited to certain employees. (e.g., those of an employer or group of employers).

Collective investment schemes – are financial products characterised by the pooling of funds (money or asset contributions) of investors and investing the total into different assets (securities) and managed by a common asset manager. Under E.U. law collective investment schemes are regulated under 6 different legal forms: UCITS (see below), the most common for individual investors; AIFs (see above), European Venture Capital funds (EuVECA), European Long-Term Investment Funds (ELTIFs), European Social Entrepreneurship Funds (ESEF) or Money Market Funds.²

Contribution* – is a payment made to a pension plan by a plan sponsor or a plan member.

Contribution base* – is the reference salary used to calculate the contribution.

Contribution rate* – is the amount (typically expressed as a percentage of the contribution base) that is needed to be paid into the pension fund.

Contributory pension scheme* – is a pension scheme where both the employer and the members have to pay into the scheme.

Custodian* – is the entity responsible, as a minimum, for holding the pension fund assets and for ensuring their safekeeping.

Deferred member* – is a pension plan member that no longer contributes to or accrues benefits from the plan but has not yet begun to receive retirement benefits from that plan.

Deferred pension* – is a pension arrangement in which a portion of an employee's income is paid out at a date after which that income is actually earned.

Defined benefit (DB) occupational pension plans* – are occupational plans other than defined contributions plans. DB plans generally can be classified into one of three main types, "traditional", "mixed" and "hybrid" plans. These are schemes where "the pension payment is defined as a percentage of income and employment career. The employee receives a thus pre-defined pension

² See European Commission, 'Investment Funds' (28 August 2019) https://ec.europa.eu/info/business-economy-euro/growth-and-investment/investment-funds_en.



and does not bear the risk of longevity and the risk of investment. Defined Benefits schemes may be part of an individual employment contract or collective agreement. Pension contributions are usually paid by the employee and the employer".³

"Traditional" DB plan* – is a DB plan where benefits are linked through a formula to the members' wages or salaries, length of employment, or other factors.

"Hybrid" DB plan* – is a DB plan where benefits depend on a rate of return credited to contributions, where this rate of return is either specified in the plan rules, independently of the actual return on any supporting assets (e.g. fixed, indexed to a market benchmark, tied to salary or profit growth, etc.), or is calculated with reference to the actual return of any supporting assets and a minimum return guarantee specified in the plan rules.

"Mixed" DB plan* – is a DB plans that has two separate DB and DC components, but which are treated as part of the same plan.

Defined contribution (DC) occupational pension plans* – are occupational pension plans under which the plan sponsor pays fixed contributions and has no legal or constructive obligation to pay further contributions to an ongoing plan in the event of unfavourable plan experience. These are schemes where "the pension payment depends on the level of defined pension contributions, the career and the returns on investments. The employee has to bear the risk of longevity and the risk of investment. Pension contributions can be paid by the employee and/or the employer and/or the state".⁴

Dependency ratio* – are occupational pension plans under which the plan sponsor pays fixed contributions and has no legal or constructive obligation to pay further contributions to an ongoing plan in the event of unfavourable plan experience.

Early retirement* - is a situation when an individual decides to retire earlier later and draw the pension benefits earlier than their normal retirement age.

Economic dependency ratio* – is the division between the number of inactive (dependent) population and the number of active (independent or contributing) population. It ranges from 0% to 100% and it indicates how much of the inactive population's (dependent) consumption is financed from the active population's (independent) contributions. In general, the inactive (dependent) population is represented by children, retired persons and persons living on social benefits.

³ Werner Eichhorst, Maarten Gerard, Michael J. Kendzia, Christine Mayrhruber, Connie Nielsen, Gerhard Runstler, Thomas Url, 'Pension Systems in the EU: Contingent Liabilities and Assets in the Public and Private Sector' EP Directorate General for Internal Policies IP/A/ECON/ST/2010-26.

⁴ Ibid.

⁵ For more detail on the concept, see Elke Loichinger, Bernhard Hammer, Alexia Prskawetz, Michael Freiberger, Joze Sambt, 'Economic Dependency Ratios: Present Situation and Future Scenarios' MS13 Policy Paper on Implications of Population Ageing for Transfer Systems, Working Paper no. 74, 18th December 2014, 3.



EET system* – is a form of taxation of pension plans, whereby contributions are exempt, investment income and capital gains of the pension fund are also exempt, and benefits are taxed from personal income taxation.

Equity (or stocks/shares) – are titles of participation to a publicly listed company's economic activity. With regards to other categorizations, an equity is also a security, a financial asset or, under E.U. law, a transferable security.⁶

ETE system* – is a form of taxation whereby contributions are exempt, investment income and capital gains of the pension fund are taxed, and benefits are also exempt from personal income taxation.

ETF(s) — or Exchange-Traded Funds are investment funds that are sold and bought on the market as an individual security (such as shares, bonds). ETFs are structured financial products, containing a basket of underlying assets, and are increasingly more used due to the very low management fees that they entail.

Fund member* – is an individual who is either an active (working or contributing, and hence actively accumulating assets) or passive (retired, and hence receiving benefits), or deferred (holding deferred benefits) participant in a pension plan.

Funded pension plans* – are occupational or personal pension plans that accumulate dedicated assets to cover the plan's liabilities.

Funding ratio (funding level) * – is the relative value of a scheme's assets and liabilities, usually expressed as a percentage figure.

Gross rate of return* – is the rate of return of an asset or portfolio over a specified time period, prior to discounting any fees of commissions.

Gross/net replacement rate – is the ratio between the pre-retirement gross or net income and the amount of pension received by a person after retirement. The calculation methodology may differ from source to source as the average working life monthly gross or net income can used to calculate it (divided by the amount of pension) or the past 5 year's average gross income etc. (see below OECD net replacement rate).

Group pension funds* – are multi-employer pension funds that pool the assets of pension plans established for related employers.

Hedging and hedge funds — while hedging is a complex financial technique (most often using derivatives) to protect or reduce exposure to risky financial positions or to financial risks (for instance, currency hedging means reducing exposure to the volatility of a certain currency), a hedge fund is an investment pool that uses complex and varying investment techniques to generate profit.

Indexation* – is the method with which pension benefits are adjusted to take into account changes in the cost of living (e.g., prices and/or earnings).

⁶ Article 4(44) of Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU, OJ L 173, p. 349–496 (MiFID II).



Individual pension plans* – is a pension fund that comprises the assets of a single member and his/her beneficiaries, usually in the form of an individual account.

Industry pension funds* – are funds that pool the assets of pension plans established for unrelated employers who are involved in the same trade or businesses.

Mandatory contribution* – is the level of contribution the member (or an entity on behalf of the member) is required to pay according to scheme rules.

Mandatory occupational plans* – Participation in these plans is mandatory for employers. Employers are obliged by law to participate in a pension plan. Employers must set up (and make contributions to) occupational pension plans which employees will normally be required to join. Where employers are obliged to offer an occupational pension plan, but the employees' membership is on a voluntary basis, these plans are also considered mandatory.

Mandatory personal pension plans* - are personal plans that individuals must join, or which are eligible to receive mandatory pension contributions. Individuals may be required to make pension contributions to a pension plan of their choice normally within a certain range of choices or to a specific pension plan.

Mathematical provisions (insurances) – or *mathematical reserves* or *reserves*, are the value of liquid assets set aside by an insurance company that would be needed to cover all current liabilities (payment obligations), determined using actuarial principles.

Minimum pension* – is the minimum level of pension benefits the plan pays out in all circumstances.

Mixed indexation* – is the method with which pension benefits are adjusted taking into account changes in both wages and prices.

Money market instruments – are short-term financial products or positions (contracts) that are characterized by the very high liquidity rate, such as deposits, short-term loans, repo-agreements and so on.

MTF – multilateral trading facility, is the term used by the revised Markets in Financial Instruments Directive (MiFID II) to designate securities exchanges that are not a regulated market (such as the London Stock Exchange, for example).

Multi-employer pension funds* – are funds that pool the assets of pension plans established by various plan sponsors. There are three types of multi-employer pension funds:

- a) for related employers i.e., companies that are financially connected or owned by a single holding group (group pension funds);
- b) for unrelated employers who are involved in the same trade or business (industry pension funds);
- c) for unrelated employers that may be in different trades or businesses (collective pension funds).



Money-Weighted Returns (MWR) - also referred to as the internal rate of return, is a measurement of performance that takes into account cash flows (contributions) when calculating returns.

NAV – Net Asset Value, or the amount to which the market capitalisation of a financial product (for this report, pension funds' or insurance funds' holdings) or a share/unit of it arises at a given point. In general, the Net Asset Value is calculated per unit or share of a collective investment scheme using the daily closing market prices for each type of security in the portfolio.

Net rate of return* – is the rate of return of an asset or portfolio over a specified time period, after discounting any fees of commissions.

Normal retirement age* – is the age from which the individual is eligible for pension benefits.

Non-contributory pension scheme* – is a pension scheme where the members do not have to pay into scheme.

Occupational pension plans* – access to such plans is linked to an employment or professional relationship between the plan member and the entity that establishes the plan (the plan sponsor). Occupational plans may be established by employers or groups of thereof (e.g., industry associations) and labour or professional associations, jointly or separately. The plan may be administrated directly by the plan sponsor or by an independent entity (a pension fund or a financial institution acting as pension provider). In the latter case, the plan sponsor may still have oversight responsibilities over the operation of the plan.

Eurostat aggregate replacement rate for pensions refers to median individual pension income of population aged 65-74 relative to median individual earnings from work of population aged 50-59, excluding other social benefits.

Old-age dependency ratio - defined as the ratio between the total number of elderly persons when they are generally economically inactive (aged 65 and above) and the number of persons of working age. It is a sub-indicator of the economic dependency ratio and focuses on a country's public (state) pension system's reliance on the economically active population's pensions (or social security) contributions. It is a useful indicator to show whether a public (Pillar I) pension scheme is under pressure (when the ratio is high, or the number of retirees and the number of workers tend to be proportionate) or relaxed (when the ratio is low, or the number of retirees and the number of workers tend to be disproportionate). For example, a low old-age dependency ratio is 20%, meaning that 5 working people contribute for one retiree's pension.

Open pension funds* – are funds that support at least one plan with no restriction on membership.

Pension assets* – are all forms of investment with a value associated to a pension plan.

Pension fund administrator* – is(are) the individual(s) ultimately responsible for the operation and oversight of the pension fud.

Pension fund governance* – is the operation and oversight of a pension fund. The governing body is responsible for administration, but may employ other specialists, such as actuaries, custodians,

⁷ See Eurostat definition: http://ec.europa.eu/eurostat/web/products-datasets/product?code=tsdde511.



consultants, asset managers and advisers to carry out specific operational tasks or to advise the plan administration or governing body.

Pension fund managing company* – is a type of administrator in the form of a company whose exclusive activity is the administration of pension funds.

Pension funds* – the pool of assets forming an independent legal entity that are bought with the contributions to a pension plan for the exclusive purpose of financing pension plan benefits. The plan/fund members have a legal or beneficial right or some other contractual claim against the assets of the pension fund. Pension funds take the form of either a special purpose entity with legal personality (such as a trust, foundation, or corporate entity) or a legally separated fund without legal personality managed by a dedicated provider (pension fund management company) or other financial institution on behalf of the plan/fund members.

Pension insurance contracts* – are insurance contracts that specify pension plans contributions to an insurance undertaking in exchange for which the pension plan benefits will be paid when the members reach a specified retirement age or on earlier exit of members from the plan. Most countries limit the integration of pension plans only into pension funds, as the financial vehicle of the pension plan. Other countries also consider the pension insurance contract as the financial vehicle for pension plans.

Pension plan* – is a legally binding contract having an explicit retirement objective (or – in order to satisfy tax-related conditions or contract provisions – the benefits cannot be paid at all or without a significant penalty unless the beneficiary is older than a legally defined retirement age). This contract may be part of a broader employment contract, it may be set forth in the plan rules or documents, or it may be required by law. In addition to having an explicit retirement objective, pension plans may offer additional benefits, such as disability, sickness, and survivors' benefits.

Pension plan sponsor* – is an institution (e.g., company, industry/employment association) that designs, negotiates, and normally helps to administer an occupational pension plan for its employees or members.

Pension regulator* – is a governmental authority with competence over the regulation of pension systems.

Pension supervisor* – is a governmental authority with competence over the supervision of pension systems.

Personal pension plans* - Access to these plans does not have to be linked to an employment relationship. The plans are established and administered directly by a pension fund or a financial institution acting as pension provider without any intervention of employers. Individuals independently purchase and select material aspects of the arrangements. The employer may nonetheless make contributions to personal pension plans. Some personal plans may have restricted membership.

Private pension funds* – is a pension fund that is regulated under private sector law.



Private pension plans* – is a pension plan administered by an institution other than general government. Private pension plans may be administered directly by a private sector employer acting as the plan sponsor, a private pension fund or a private sector provider. Private pension plans may complement or substitute for public pension plans. In some countries, these may include plans for public sector workers.

Public pension plans* – are pensions funds that are regulated under public sector law.

Public pension plans* – are the social security and similar statutory programmes administered by the general government (that is central, state, and local governments, as well as other public sector bodies such as social security institutions). Public pension plans have been traditionally PAYG financed, but some OECD countries have partial funding of public pension liabilities or have replaced these plans by private pension plans.

Rate of return* – is the income earned by holding an asset over a specified period.

REIT(s) or Real Estate Investment Trust(s) is the most common acronym and terminology used to designate special purpose investment vehicles (in short, companies) set up to invest and commercialise immovable goods (real estate) or derived assets. Although the term comes from the U.S. legislation, in the E.U. there are many forms of REITs, depending on the country since the REIT regime is not harmonised at E.U. level.

Replacement ratio* – is the ratio of an individual's (or a given population's) (average) pension in a given time period and the (average) income in a given time period.

Service period* – is the length of time an individual has earned rights to a pension benefit.

Single employer pension funds* – are funds that pool the assets of pension plans established by a single sponsor.

Summary Risk Reward Indicator - a measurement developed by the European Securities and Markets Authority (former CESR) to be included in the Key Investor Information Document (KIID) for UCITS (undertakings for collective investment in transferable securities) to reflect the risk profile of a certain fund.

Supervisory board* – is(are) the individual(s) responsible for monitoring the governing body of a pension entity.

System dependency ratio* – typically defined as the ratio of those receiving pension benefits to those accruing pension rights.

TEE system* – is a form of taxation of pension plans whereby contributions are taxed, investment income and capital gains of the pension fund are exempt, and benefits are also exempt from personal income taxation.

Time-Weighted Returns (TWR) - is the standard method of calculating returns (and performance) of an investment and simply represents the growth/decrease in value without incorporating the distorting effects of cash inflows and outflows (for pensions, that means contributions and

Trust* – is a legal scheme, whereby named people (termed trustees) hold property on behalf of other people (termed beneficiaries).



Trustee* – is a legal scheme, whereby named people (termed trustees) hold property on behalf of other people (termed beneficiaries).

UCITS – or Undertakings for Collective Investment in Transferable Securities, is the legal form under E.U. law for mutual investment funds that are open to pool and invest funds from any individual or institutional investor, and are subject to specific authorisation criteria, investment limits and rules. The advantage of UCITS is the general principle of home-state authorisation and mutual recognition that applies to this kind of financial products, meaning that a UCITS fund established and authorised in one E.U. Member State can be freely distributed in any other Member State without any further formalities (also called *E.U. fund passporting*).

Unfunded pension plans* – are plans that are financed directly from contributions from the plan sponsor or provider and/or the plan participant. Unfunded pension plans are said to be paid on a current disbursement method (also known as the pay as you go, PAYG, method). Unfunded plans may still have associated reserves to cover immediate expenses or smooth contributions within given time periods. Most OECD countries do not allow unfunded private pension plans.

Unprotected pension plan* – is a plan (personal pension plan or occupational defined contribution pension plan) where the pension plan/fund itself or the pension provider does not offer any investment return or benefit guarantees or promises covering the whole plan/fund.

Voluntary contribution – is an extra contribution paid in addition to the mandatory contribution a member can pay to the pension fund in order to increase the future pension benefits.

Voluntary occupational pension plans - The establishment of these plans is voluntary for employers (including those in which there is automatic enrolment as part of an employment contract or where the law requires employees to join plans set up on a voluntary basis by their employers). In some countries, employers can on a voluntary basis establish occupational plans that provide benefits that replace at least partly those of the social security system. These plans are classified as voluntary, even though employers must continue sponsoring these plans in order to be exempted (at least partly) from social security contributions.

Voluntary personal pension plans* – Participation in these plans is voluntary for individuals. By law individuals are not obliged to participate in a pension plan. They are not required to make pension contributions to a pension plan. Voluntary personal plans include those plans that individuals must join if they choose to replace part of their social security benefits with those from personal pension plans.

Wage indexation* – is the method with which pension benefits are adjusted taking into account changes in wages.

Waiting period* – is the length of time an individual must be employed by a particular employer before joining the employer's pension scheme.

Winding-up* – is the termination of a pension scheme by either providing (deferred) annuities for all members or by moving all its assets and liabilities into another scheme.



World Bank multi-pillar model – is the recommended design, developed by the World Bank in 1994, for States that had pension systems inadequately equipped to (currently and forthcoming) sustain a post-retirement income stream for future pensioners and alleviate the old-age poverty risk. Simpler, it is a set of guidelines for States to either enact, reform or gather legislation regulating the state pension and other forms of retirement provisions in a form that would allow an increased workers' participation, enhance efficiency for pension savings products and a better allocation of resources under the principle of solidarity between generations.

The standard design of a robust pension system would rely on five pillars:

- a) the non-contributory scheme (pillar 0), through which persons who do not have an income or do not earn enough would have insured a minimum pension when reaching the standard retirement age;
- b) the public mandatory, Pay-As-You-Go (PAYG) scheme (**Pillar I**), gathering and redistributing pension contributions from the working population to the retirees, while accumulating pension rights (entitlements) for the future retirees;
- the mandatory funded and (recommended) privately managed scheme (Pillar II), where workers' contributions are directed to their own accumulation accounts in privately managed investment products;
- d) the voluntary privately managed retirement products (**Pillar III**), composed of pension savings products to which subscription is universal, contributions and investments are deregulated and tax-incentivised;
- e) the non-financial alternative aid scheme (pillar IV), through which the state can offer different forms of retirement support such as housing or family support. Albeit the abovementioned, the report focuses on the "main pillars", i.e., Pillar I, II and III, since they are the most significant (and present everywhere) in the countries that have adopted the multi-pillar model.

Definitions with "*" are taken from OECD's Pensions Glossary - http://www.oecd.org/daf/fin/private-pensions/38356329.pdf.



Contributors

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Dr. Thomas Url is an economist at the Austrian Institute of Economic Research (WIFO) and lecturer at the University of Vienna. He graduated at the University of Graz and attended the post graduate course in economics at the Institute for Advanced Studies (Vienna). His main research areas are risk management and funded pension systems, European monetary and economic union as well as various topics in applied econometrics.

Ştefan Dragoş Voicu is Senior Research & Policy Officer at BETTER FINANCE, having a thorough background in Romanian and EU law. He specialises in Financial Services Regulation and Capital Markets Research, with a focus on packaged investment products (mutual funds and insurances), retirement provision and market infrastructure. He coordinates four BETTER FINANCE Working Groups on Pensions, Insurances, Packaged Investments and Audit & Reporting.



Pension Savings: The Real Return 2021 Edition

Executive Summary

With the two of three worst financial meltdowns of the past hundred years occurring in the past 12 years, can our societies rely on financial markets to deliver decent retirement outcomes for millions around the world?"8

Despite improvements, real returns of pension savings still struggle to deliver value for money

How much did pension savers earn on average?

The main question this report seeks to answer is: How much was the pension saver left with, on average, after charges and inflation were deducted from his benefits at the end of different periods, compared to the amounts he saved? The aggregate summary return tables show — for occupational/collective ("Pillar II") and voluntary/individual ("Pillar III") pension products - the annual average rate of return on investments in each country based on 5 periods: 1, 3, 7, 10 years and since the start of the available reporting period (differs case by case). These standardised periods eliminate inception and market timing biases, allowing to "purely" compare performances between different pension schemes.

⁸ Amin Rajan (Crate Research), 'Coronavirus Crisis Inflicts a Double Blow to Pensions' (FT.com, 15 April 2020) available at: https://www.ft.com/content/bd878891-4f20-46c3-ab23-939162a85d9c.



	egate sum eturn tabl			<u>Pillar II</u>					
	1 year		3 years		7 years		10 years		max. available
	2020	2019	2018-2020	2017-2019	2014-2020	2013-2019	2011-2020	2010-2019	•
Austria	1.41%*	8,01%	1,23%	1,78%	2,35%	2,53%	1,79%	2,01%	1,48%
Belgium	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Bulgaria	1,41%	2,71%	-1,06%	-0,24%	2,06%	2,59%	1,96%	1,74%	-1,35%
Croatia	-0,29%	8,06%	2,81%	4,68%	4,99%	5,77%	4,10%	4,91%	3,28%
Denmark	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Estonia	4,64%	7,97%	2,10%	0,57%	2,13%	1,65%	1,31%	1,24%	0,67%
France	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Germany	n.a.	3,02%	n.a.	1,77%	n.a.	2,54%	n.a.	2,40%	2,28%
Italy	3,30%	7,30%	1,85%	1,76%	2,81%	3,33%	2,66%	2,57%	0,84%
Latvia	1,94%	8,43%	1,12%	0,77%	1,54%	1,62%	1,45%	1,83%	-0,07%
Lithuania	5,19%	14,92%	4,72%	3,04%	4,07%	4,15%	3,52%	3,65%	1,72%
Netherlan	6,23%	13,00%	5,01%	4,26%	5,79%	5,10%	5,26%	5,42%	2,89%
Poland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Romania	2,59%	5,05%	1,81%	0,61%	2,68%	3,64%	2,95%	3,33%	2,41%
Slovakia	0,45%	5,37%	0,70%	-0,27%	1,50%	1,57%	0,79%	0,74%	-0,03%
Spain	2,10%	7,89%	1,74%	2,14%	2,80%	4,28%	2,94%	2,60%	0,79%
Sweden	6,45%	24,08%	8,23%	9,03%	n.a.	n.a.	n.a.	n.a.	8,32%
UK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

<u>Source</u>: BETTER FINANCE own composition; see methodological explanation box below

Voluntary pension products vary in market share based on the jurisdiction: in some cases, insurance-based products are more prevalent, whereas in some countries pension funds are preferred. The table below shows the average real net returns for supplementary pensions by standardised holding periods.

- Data for 2020 is estimated. So are the previous 2019 figures, which are now consolidated.
- Returns for Bulgaria are time-weighted, and the dataflow is updated compared to the last edition.
- In Germany AOPP is used as a proxy for pillar II returns.
- For Romania, returns are calculated in EUR and differ from previous editions. See Romanian country case explanations.
- For Spain, pillar II returns have been recalculated based on the weighted average between employer-sponsored and associate plans.



	egate sumr eturn tabl		<u>Pillar III</u>						
	1 year		3 years		7 years		10 years		whole reporting
	2020	2019	2018-2020	2017-2019	2014-2020	2013-2019	2011-2020	2010-2019	period*
Austria	1.82%*	1,2%	1,34%	1,01%	1,70%	1,73%	1,50%	1,51%	2,05%
Belgium	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Bulgaria	1,91%	3%	-0,92%	0,08%	2,57%	3,28%	2,65%	2,48%	0,17%
Croatia	-1,41%	8,57%	2,13%	3,58%	4,57%	5,07%	3,75%	4,58%	3,59%
Denmark	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Estonia	4,51%	13,84%	2,37%	1,64%	3,19%	3,03%	2,04%	2,45%	1,54%
France*	1,30%	2,83%	0,44%	0,46%	1,23%	3,55%	1,23%	2,81%	1,36%
Germany*	2,68%	0,67%	1,30%	0,68%	1,62%	1,53%	1,64%	1,58%	1,51%
Italy	0,03%	6,40%	1,18%	1,22%	2,58%	2,84%	2,49%	1,99%	1,85%
Latvia	2,14%	8,66%	0,82%	0,59%	1,75%	1,94%	1,58%	n.a.	1,58%
Lithuania	4,83%	8,72%	2,29%	1,22%	2,85%	2,93%	1,98%	2,48%	1,05%
Netherland	1,83%	0,40%	1,39%	1,40%	1,14%	0,97%	0,27%	-0,08%	0,13%
Poland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Romania	0,99%	3,99%	0,35%	-0,41%	1,53%	2,69%	1,91%	2,06%	-0,85%
Slovakia	1,30%	5,68%	0,00%	0,22%	1,00%	0,98%	0,44%	0,37%	0,60%
Spain	0,80%	8,11%	0,86%	1,24%	1,83%	3,25%	2,00%	2,15%	0,32%
Sweden	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
UK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

<u>Source</u>: BETTER FINANCE own composition; *whole reporting period differs between countries; for DE, pillar III can be proxied through both Riester and Rurup pensions, the authors chose Riester for the purposes of this graph (Acquisition charges are included and spread over 5 years); for BG, VPF is proxied for pillar III returns and the returns are time-weighted; for FR, pillar III comprises life insurance, corporate savings plans, public employee pension schemes: for AT, the returns for 2020 are estimated, so were the 2019 figures which are now consolidated;

Unfortunately, due to unavailability of data breakdowns, for some country cases (UK, Netherlands, Belgium, Denmark, Poland, Sweden) we were not able to calculate the annual real average returns by Pillar. Nevertheless, the results by retirement provision vehicle are available in Graphs 18 and Table 20 in the *General Report*.

Note: For a few pension systems analysed in the report, the data available on retirement provision vehicles clearly distinguishes between Pillar II and Pillar III (such as Romania or Slovakia). In other countries, where pension savings products may be used for both Pillars, the categorisation is more difficult since return data is not separated as such. However, for reasons of simplicity and comparability, the authors of the report have put in all the necessary efforts to correctly assign each product according to the pillar it is, or should be, used for.



Taxation

What happens to investment returns after charges and inflation are deducted?

Charges, investment strategies and inflation influence earnings, but the actual sum the pension saver will be able to withdraw and spend at retirement will depend on the <u>taxation regime</u>. In other words, when and how much do savers lose of their pensions due to taxes?

The actual taxation rates (in %) are highlighted in Table GR10 and in the *Taxes* sub-section of each individual country case. However, the purpose of the "pillar"-system is to stimulate pension savings by giving tax incentives (exemptions, lower taxes, deductibility, subsidises etc).

The table below shows whether the three pension saving steps (<u>contribution</u> – what you pay for your pension; <u>returns</u> – what your investments earn; and <u>pay-outs</u> – what you will withdraw) are **exempt** (E) or **taxed** (T) in each country under review.

Taxation of pension savings							
		Contributio	ns	Returns	Pay-outs		
	Pillar II	Pillar III	Pillar II	Pillar III	Pillar II	Pillar III	
Austria	Ε	E	Е	Ε	Т	Т	
Belgium	Ε	E	Е	Е	T	Т	
Bulgaria	Ε	E	Е	E	Е	Ε	
Croatia	Ε	E	Е	E	T	Т	
Denmark*	Т	Т	Т	Т	T	T	
Estonia	Ε	E	Е	Е	T	Т	
France	Ε	E/T	Т	Т	Т	Т	
Germany	Т	Т	Е	Т	T	Т	
Italy	Ε	E	Т	Т	Т	Т	
Latvia	Ε	E	Е	Е	T	Т	
Lithuania	Ε	E	E	E	E	Е	
Netherlan ds	Е	E	E	Е	Т	Т	
Poland	T	E/T	Ε	E	E	E/T	
Romania	Ε	E	Е	Ε	Т	Т	
Slovakia*	E/T	E	Ε	Ε	E	Т	
Spain*	Е	Е	E	Ε	T	T	
Sweden	Ε	Ε	Т	Т	Т	Т	
UK	Е	E	E	Е	Т	T	

^{*}There are rules and exceptions based on the type of pension vehicle. For details, see the relevant country case; Source: BETTER FINANCE own composition

Pension plan types: defined contribution on top

Who bears the risk of adequate pensions at retirement?

Originally, the level of pension (benefit) would be pre-defined by the provider of the pension plan, usually based on a formula that used some standard variables for each saver (income/salary,



inflation, etc). As such, the pension plan provider bears the risk of obtaining the necessary resources (money) to pay out this *defined benefit* pension to the saver at retirement age.

Nowadays, most private pension plans (Pillar II and III) use a *defined contribution* rule. This means that the saver only knows how much he can pay for his future pension, but the actual amount and income level at retirement will depend on external factors and will be subject to capital market fluctuations, just as any other investment. In other words, the risk of obtaining an adequate pension at retirement depends on the investment decisions made by the saver, where the provider is only obliged to pay-out the *real net returns*, before tax, earned during the investment period.

	Pension scheme type (who bears the risk?)								
	Provider (de	efined benefit)	Saver (defined contribution)						
	Pillar II	Pillar III	Pillar II	Pillar III					
Austria	X		Χ	X					
Belgium	X	X	X	X					
Bulgaria			X	Χ					
Croatia	X			X					
Denmark	Χ	X	X	Χ					
Estonia			X	X					
France	X		Χ	Χ					
Germany	Х		Χ	X					
Italy			X	Χ					
Latvia			X	X					
Lithuania			Χ	X					
Netherlands	Х		X	X					
Poland			Χ	Х					
Romania			Χ	X					
Slovakia			Χ	X					
Spain	X		X	X					
Sweden	X		X	Х					
UK	X		X	Χ					

Source: BETTER FINANCE own composition

For more details on how this information unfolds, what factors influence pension savings and how governments tax pension earnings, read the following chapter or the individual country case corresponding to your domicile.



Pension Savings: The Real Return 2021 Edition

EU Policy Updates

The High-Level Forum on the Future of the Capital Markets Union⁹ made three important recommendations¹⁰ for the European Commission to pursue in the area of pensions, to which BETTER FINANCE contributed and fully supported:

- establishing *national pension dashboards*, which are systems of indicators for EU Member States "to monitor the state of play in Member States and, where applicable, the progress achieved by Member States with regard to pension sustainability and pension adequacy";
- establishing *individual pension tracking systems*, which would be platforms where EU citizens can see all their pensions data (State pension and private pension vehicles) with the purpose of providing "an overview and an estimate of the future retirement income from different sources";
- supporting EU Member States in establishing *auto-enrolment in occupational pension schemes*, which would mean that workers would by default contribute to a pension plan, with the possibility to opt-out (stop contributions) at no cost.

The European Commission (EC) and European Insurance and Occupational Pensions Authority (EIOPA) followed-up on these proposals and have started work towards their implementation. The EC formally initiated the process by mandating EIOPA to gather evidence, data, and technical recommendations on the first two actions while also commissioning a study from a consortium of consultants on best practices in auto-enrolment systems. Consequently, EIOPA published two public consultations requesting:

- technical advice on the development of pension dashboards and the collection of pensions data, which is meant to gather input from stakeholders on where and how to aggregate the necessary information and what indicators to use to set up and update the pension dashboards;
- <u>technical advice on pension tracking services</u>, which is meant to collect views from stakeholders on what types of investment products will be aggregated in the tracking service, what and how the estimations of the retirement pot will be made, etc.

BETTER FINANCE, together with the experts that collaborate with the writing of this report, will leverage the long-term experience accumulated through the efforts of publishing this report since 2013 and will provide EIOPA with technical advice on both topics.

https://ec.europa.eu/info/sites/default/files/business_economy_euro/growth_and_investment/documents/200610-cmu-high-level-forum-final-report_en.pdf, Recommendation 11, page 85.

⁹ A group of experts from EU public authorities, industry, and consumer associations established by the European Commission between November 2019 and May 2020 to brainstorm and make recommendations to improve the regulation and supervision of EU capital markets and create better conditions to invest for EU citizens; see https://ec.europa.eu/info/publications/cmu-high-level-forum_en.

¹⁰ See the Final Report here:



Pension Savings: The Real Return 2021 Edition

Value for Money for Long-term and Pension Savings

For too many editions in a row (since 2013), BETTER FINANCE's annual report on the real returns of long-term and pension savings finds, in many EU jurisdictions, poorly performing retirement saving vehicles (whether pension funds, products, or life-insurances used for pension provision) once fees and inflation are deducted. With a few notable exceptions, such as occupational pension funds in the Netherlands or the AP7 Safa fund in Sweden, the majority of products barely cover for inflation and only a handful come close to a simple, broad capital markets benchmark (50% equity and 50% bonds). Unfortunately, there is also a share – quite high – of products that deliver negative returns, which means that, in hindsight, keeping savings "under the mattress" would have been a more profitable solution.

Considering the impact on economic output generated by the global health pandemic, the strains on public pension systems, the current low interest rate environment, and the shift from defined-benefit to defined-contribution pensions, addressing the pensions time-bomb is long overdue.¹¹

While there is no silver bullet to rectify poor pension returns, BETTER FINANCE formulates a set of proposals to define *value for money* for retirement provision investments.

BETTER FINANCE already initiated the debate on *value for money* for retail investment products in November 2019, when it released the joint BETTER FINANCE-CFA Institute report on *Sustainable Value for Money*. ¹² The report, gathering the views of investment professionals and retail investors, found, among others, that the duty of care (*to act in the best interests of clients*) should be mandatory for finance professionals and that consumers should be presented with simple and standardised information on cost and past performance.

Moreover, an earlier (2016) report by the CFA Institute found that retail investors have high expectations for finance professionals to generate similar or better returns than those of the benchmark, and that the charges and fees paid must reflect the value of the relationship, but with a level of satisfaction much lower in both regards.¹³

In 2021, the European Insurance and Occupational Pensions Authority (EIOPA) launched a public consultation aimed at gathering stakeholders' views on the proposed framework to assess value for

¹¹ See BETTER FINANCE's Press Release of 29 November 2017 "BETTER FINANCE Applauds EU Proposal for a Pan-European Personal Pension (PEPP) to Defuse the Ticking Pensions Time Bomb", available at: https://betterfinance.eu/wp-content/uploads/publications/PR- PEPP INITIATIVE 19072017 01.pdf.

¹² BETTER FINANCE-CFA Institute Report, *Sustainable Value for Money* (2019), p. 6, available at: https://betterfinance.eu/wp-content/uploads/BETTER-FINANCE-CFA-Institute-Report-on-SUSTAINABLE-VALUE-FOR-MONEY-201119 correct.pdf.

¹³ CFA Institute, From Trust to Loyalty: A Global Survey of What Investors Want, (2016), p. 14., available at: https://www.cfainstitute.org/-/media/documents/survey/from-trust-to-loyalty.ashx.



money for unit-linked insurance-based investment products. ¹⁴ According to EIOPA, value for money would mean that "the costs and charges are proportionate to the benefits (i.e., investment performance, guarantees, coverage and services) to the identified target market and reasonable taking into account the expenses born by providers and in comparison to other comparable retail solutions on the market". ¹⁵ EIOPA's definition sets a very important milestone as it builds the concept of value for money (VfM) around cost and performance but, very important, not in a vacuum: what retail investors pay for their investments must be comparably better compensated through returns and other product features than other options on the market. On this occasion, BETTER FINANCE put forward several proposals to improve on EIOPA's definition, namely:

- while comparability with "other solutions on the market" is a step in the right direction, in many cases the entire peer-group of a product may be poorly performing as is already the case which may still leave investors with undesirable outcomes; thus, BETTER FINANCE proposed to replace "other solutions on the market" with the market index benchmark, i.e., the underlying investments;
- a product's purpose (objective and investment policy) must be aligned with the concept of value for money;
- the products' costs must be reviewed regularly.

At the same time, inspiration can also be drawn from the practice of the UK Financial Conduct Authority (FCA), which spearheaded (and continues to) retail investor protection in Europe. To begin with, the UK was the first country in Europe to ban commissions, kickbacks, retrocessions (collectively, "inducements") for retail investment services and products. Besides creating a conflict of interests, inducements also increase the cost of investing, which further erodes net returns. ¹⁶

Second, the UK FCA issued a handbook (guidance) for fund managers on how to evaluate and report to clients the value their investment services deliver for the money they are paid. The guidance highlights that fund managers should assess the value of services in light of costs (in general and comparing classes of units), comparable market rates, the quality of the service (also in comparison

¹⁴ The framework takes the form of a supervisory convergence mechanism under the tools of EIOPA and it would be ultimately addressed to national insurance supervisors when evaluation the provision of insurance-based investment products to retail investors.

¹⁵ See the EIOPA Consultation Paper on Addresing Value for Money risk in the European unit-linked market, available at: https://www.eiopa.europa.eu/document-library/consultation/consultation-framework-address-value-money-risk-european-unit-linked_en.

¹⁶ See the BETTER FINANCE Report on the Correlation between Cost and Performance in eu Equity Retail Funds, where we analysed active funds' ability to outperform the market and the impact of fees on mutual fund performance, finding that "the more you pay, the less you get" - https://betterfinance.eu/wp-content/uploads/BETTER1.pdf. See also the ESMA Annual Statistical Report Cost and Performance (latest the 2021 edition), highlighting that passive equity funds and UCITS ETFs (which are much cheaper) overperform the more expensive actively managed ones — https://www.esma.europa.eu/sites/default/files/library/esma 50-165-

¹⁷¹⁰ asr performance and costs of eu retail investment products.pdf; see also the ESMA Annual Statistical Report on Cost and Performance of 2020, highlighting that more expensive, actively managed funds impact returns and underperform not only their passive and index-tracking peers, but also the benchmark - to passive and ETFs UCITS, ultimately impacting performance" - https://www.esma.europa.eu/sites/default/files/library/esma50-165-1106-asr-performance and costs.pdf.



with other services), and performance. The performance must be "considered over an appropriate timescale having regard to the scheme's investment objectives, policy and strategy". 17

Recently, the FCA furthered their efforts in driving value for money in retail investment products by issuing a policy statement on assessing value for money in workplace pension schemes and pathway investments.¹⁸ The FCA highlights that managers¹⁹ of occupational pension funds must take into account three key elements in assessing whether they deliver value for money or not:

- costs and charges,
- investment performance, and
- the quality of services,

in comparison "with other similar propositions on the market".

At the same time, one must also factor in pension adequacy when analysing the returns of retirement provision vehicles. Although there is no unified understanding of pension adequacy, a few sources can give an adequate starting point.

The European Commission builds the concept of pension adequacy (from public pensions) on three pillars: eliminating the risk of poverty in old age, smooth transition from work income to retirement income and the length of retirement. 20 By smooth transition, the European Commission refers to a pensions' ability to replace the working-life income in such a way as to limit the financial impact brought about by this transition. In simpler words, an adequate pension must ensure, at the very least, that pensioners are not in a far worse position than when they were earning work income.

The European Commission also correctly noted that adequacy is achieved if individuals "can spend a reasonable share of their lives in retirement". 21

Other authors define pension adequacy as allowing individuals "to maintain, to a reasonable degree, their standard of living after retirement". 22 A World Bank report on adequate pension systems focused, besides the smooth transition between work-life and retirement and poverty in old age, also on smoothing consumption. In short, smoothing consumption over the lifetime of

¹⁷ See the Collective Investment Schemes sourcebook (COLL) rules that require fund managers to carry out a Value Assessment (AoV) at least annually, to report publicly on the conclusions of the AoV, and to appoint independent directors on AFM Boards - https://www.handbook.fca.org.uk/handbook/COLL.pdf.

¹⁸ UK Financial Conduct Authority, Assessing Value for Money in Workplace Pension Schemes and Pathway Investments: (October 2021) Policy Statement PS21/12, available Requirements for IGCs and GAAs https://www.fca.org.uk/publication/policy/ps21-12.pdf.

¹⁹ Independent Governance Committee (IGC) or Governance Advisory Arrangement (GAA).

²⁰ European Commission Pension Adequacy Report 2021 (Vol. I), p. 22.

²² Margherita Borella, Elsa Fornero, Adequacy of Pension Systems in Europe: An Analysis Based on Comprehensive Replacement Rates (April 2009), ENEPRI Research Report no. 68, AMI WP 9, available at: https://www.ceps.eu/download/publication/?id=6260&pdf=1837.pdf.



workers means that achieving an adequate level of pensions should not necessitate exaggerated savings during working life.²³

Therefore, it can be argued that pension adequacy:

- should not be achieved by "saving more and more";
- should not be achieved by extending the work life (starting work earlier and retiring later);
- is achieved if the working income is replaced by a pension that is sufficient to ensure a smooth transition, or maintain the same lifestyle, from work-life to retirement.

Although pension adequacy is mostly aimed at statutory (public) pension systems, we believe that the growing importance of private pension savings in pension provision requires the application of the same "adequacy" standards.

Drawing inspiration from the above practices, but also from the knowledge and empirical findings of 9 editions of this report, BETTER FINANCE formulates the following definition for *Value for Money* in long-term and pension saving products.

Value for Money through design, objective, and governance

A long-term and pension savings product delivers value for money for individual, non-professional savers when:

- The investment objective is clearly defined by the provider in the key disclosures;
- Simple and clear full cost and performance disclosure is made publicly available and is comparable to those of other investment products with similar goals;
- the costs borne by savers are commensurate with the investment objective (e.g., if "active" level fees are charged, then the product must overperform the relevant investment universe over the recommended holding period) and commensurate with other comparable retail solutions on the market (e.g., sometimes index products on offer are ten times more expensive than the equivalent ETF solution);
- there are at least two independent members in the governing body of the product representing investors (can be the fund itself if it has legal personality or the product manufacturer) like in the UK (asset manager level) and in the US (fund level);
- the product's cost and performance must be evaluated, periodically, against the investment objectives of the provider (for example for an active fund charging active level fees, it will be its benchmark or the performance of its investment universe);

²³ Robert Holzman, Richard Hinz, *Old Age Income in the 21st Century* (2005) World Bank, available at: https://openknowledge.worldbank.org/bitstream/handle/10986/7336/32672.pdf?sequence=1&isAllowed=y.



The services provided in relation to the distribution and management of a product that delivers Value for Money should encompass the following:

• the management or governing body should report annually and in a simple and concise manner on how the product delivered Value for Money for its beneficiaries;

SUPERVISION

- supervisory authorities should conduct annual assessments of Value for Money reporting;
- EU supervisory authorities (EIOPA) should use their product intervention powers which should also cover value for money issues.



Pension Savings: The Real Return 2021 Edition

General Report

I. INTRODUCTION

In June 2013, BETTER FINANCE published a research report entitled "<u>Private Pensions: The Real Return</u>"²⁴ which evaluated the return of private pension products after charges, after inflation ("real" returns) and – where possible – after taxation, in Denmark, France and Spain.

In September 2014, BETTER FINANCE published the second edition of the "Pension Savings: The Real Return" report, which included data updates for the three initial countries covered and new in-depth evaluations of pension savings for five new countries: Belgium, Germany, Italy, Poland and the United Kingdom.

The following editions added 10 more countries to the report and updated the figures for those already included. This year's edition (the ninth in a row) expands the geographic scope once again to include Croatia.

The actual performance of this market is unknown to clients and to public supervisors

This report was built to respond to one of the big problems for the pensions market in the EU: lack of data on real net performances. Since a comprehensive approach to provide this indispensable information to savers is not yet provided by public authorities or other independent bodies, this report aims to improve transparency and comparability on the real returns of long-term and pension savings in Europe. This is in line with the European Commission's current "Action" to improve the transparency of performance and fees in this area (as part of its Capital Markets Union - CMU - Action Plan) and it corresponds with the current tasks the ESAs are undertaking in the area of personal pension products with respect to past performance and cost comparison.

Indeed, apart from the OECD's (the Organisation for Economic Co-operation and Development) report on pensions and EIOPA's (European Insurance and Occupational Pension's Authority) reports on cost and performance, which covers a part of the private pensions market, the contributors to this research report could not find any other more complete or more recent published

²⁴ Link for the print version available here:



comprehensive series of net real pension savings returns for such a wide coverage of EU countries and the UK.

The data reported by the OECD²⁶ are unfortunately quite incomplete:

- At the time of writing, the most recent OECD publication on *pension funds*' returns, "Pension Funds in Figures 2021", provides only 1-year preliminary data (for 2020) on the real returns of *pension funds* in selected OECD and non-OECD countries;²⁷
- The OECD "Pension Markets in Focus 2020" covers 15-year returns maximum (until 2019) only for *pension funds*;²⁸
- Although the OECD reports 5-year returns for 23 EU countries, it drops to 16 for 10-year horizons and to 11 for 15-year horizons, ending in 2019;
- A part of occupational pension products, and most if not all individual pension products are
 missing as well, as OECD performance data include only "pension funds" stricto sensu, and
 exclude all "pension insurance contracts and funds managed as part of financial institutions
 (often banks or investment companies), such as the Individual Retirement Accounts (IRAs) in the
 United States";
- It is questionable that the OECD was able to capture all expenses borne by pension savers entry fees for example because the OECD relies mostly on reporting by national authorities and, typically, this is not something covered by them;
- Finally, OECD figures are all before taxes, except for Italy.

EIOPA's Annual Report on Cost and Performance of 2021 covers only 57% of the unit-linked insurances market and 62% of the profit-participation one, and the personal pensions (insurance-based) part covers only a few (210) products from 14 jurisdictions in the EU. Moreover, and unfortunately, the cost data in EIOPA's report is the Reduction-in-Yield from the PRIIPs KID and only covers the previous 5 years.

In comparison, the present report documents a principal component of, and reason for, the generalised level of distrust of EU citizens in capital markets, namely the frequent poor performance of private pension products, once inflation, charges and (when possible) taxes are deducted from nominal returns, when compared to the relevant capital market benchmarks.

Totalling 17 EU Member States under review (Austria, Belgium, Bulgaria, Croatia, Denmark, Estonia, France, Germany, Italy, Latvia, Lithuania, Poland, Romania, Slovakia, Spain Sweden and The Netherlands), the BETTER FINANCE research now covers 87% of the EU27 population.²⁹ It also

²⁶ Namely the OECD "Pension Markets in Focus 2017" (1, 5 and 10 year data), and the subsequent editions (2018, 2019, 2020), available at: https://www.oecd.org/pensions/private-pensions/pensionmarketsinfocus.htm.

²⁷ https://www.oecd.org/daf/fin/private-pensions/Pension-Funds-in-Figures-2021.pdf.

²⁸ https://www.oecd.org/daf/fin/private-pensions/Pension-Markets-in-Focus-2020.pdf.

²⁹ As of January 1st, 2020 – Eurostat, [demo_gind]' http://appsso.eurostat.ec.europa.eu/nui/show.do.



extends the period of time covered in order to now measure performance over the 21-year period ranging from 2000 to 2020, in as far as data was available.

It is the ambition and challenge of this research initiated by BETTER FINANCE and its partners to collect, analyse and report on the actual past performance of *all* long-term and pension savings products.

The net real return³⁰ of pension saving products should be:

- the long-term return (at least covering two full economic and stock market cycles, since even long-term returns are very sensitive to entry and exit dates);
- net of all fees, commissions and charges borne directly or indirectly by the customer;
- net of inflation (since for long-term products only the real return matters; that is the right approach taken by OECD as mentioned above);
- when possible, net of taxes borne by the customer (in the USA it has been mandatory for decades to disclose the past performance of mutual funds after tax in the summary of the prospectus).

We have chosen a period starting from 31 December 1999 because pension savings returns should be measured over a long-term horizon, and because it includes two market upturns (2003-2006 and 2009-2019) and two downturns (post dot com bubble of 2001-2003 and the 2008 financial crisis).

Information on the returns of long term and pension savings is deteriorating

This report shows that it is not an impossible, albeit a very challenging, task for an independent expert centre such as BETTER FINANCE to collect the data necessary for this report since quite a lot of data are simply not available at an aggregate and country level, especially for earlier years. The complexity of the taxation of pension savings in EU countries makes it also extremely difficult to compute after tax returns.

Once more, for 2020 (2021 edition), we find that **the availability and quality of information** on long-term and pension savings returns is actually not improving but on the contrary **deteriorating**:

- <u>Insufficient information</u>: for example the Belgian insurance trade organisation Assuralia no longer reports on the returns of insurance-regulated « Branch 21 » occupational and personal pension products since 2014, and the national supervisor FSMA does not do it either; in Bulgaria, the **necessary data** for Professional Pension Funds (pillar II and III) is no

³⁰ A limitation of the present report is that it does not take into account real estate as an asset for retirement. The proportion of households owning their residences varies greatly from one country to another. For example, it is especially low in Germany, where a majority of households rent their residences and where home loan and savings contracts have consequently been introduced as the most recent state-subsidised pension savings scheme. For the time being, returns on pension savings are all the more important since a majority of retirees cannot rely on their residential property to ensure a decent minimum standard of life. However, residential property is not necessarily the best asset for retirement: indeed, it is an illiquid asset, and it often does not fit the needs of the elderly in the absence of a broad use of reverse mortgages. The house might become too large or unsuitable in case of dependency. In that case, financial assets might be preferable, on the condition that they provide a good performance.



longer available since 2018; in the UK, the survey conducted by the Department for Statistics has been discontinued and information on the British pension funds stopped at 2017;

- <u>Late information</u>: at the time of printing, still a lot of 2020 return data have not been released by the national trade organisations or other providers. OECD has published preliminary data for December 2020, but on a limited number of jurisdictions and only for pension funds; however, considering that, in many countries, pension funds are not the most popular vehicle, this constitutes a large information gap.
- <u>Unchecked information</u>: the principal source remains the national trade organisations, their methodology is most often not disclosed, return data do not seem to be checked or audited by any independent party, and sometimes they are only based on sample surveys covering just a portion of the products.

The European Supervisory Authorities (ESAs) have a legal duty to collect, analyse and report data on "consumer trends" in their respective fields (Article 9(1) of the European Regulations establishing the three ESAs).

Moreover, savvy retail savers and EU public authorities must rely on private databases (and divergent methodologies) to learn about some of the costs and performances of "retail" saving products. This is because the PRIIPs Key Information Document (KID) eliminated pre-contractual disclosure of past performance and actual costs for UCITS and requires return and cost estimations instead for all "retail" investment products, including pension products. This severe setback in transparency and comparability is completely inconsistent with the CMU initiative. Four high-level initiatives have struggled to repair this situation, without success: the NextCMU Report, the High-Level Forum Final Report, the ECON CMU Report and the ESAs' draft RTS on PRIIPs Level 2. BETTER FINANCE continues to deplore the content of the PRIIPs KID.

How to achieve pension adequacy?

Public pension authorities typically stress two requisites for pension savings to achieve "pension adequacy":

- a) the need to start saving as early as possible;
- b) the need to save a significant portion of one's income before retirement activity income: "to support a reasonable level of income in retirement, 10% 15% of an average annual salary needs to be saved".³¹

BETTER FINANCE continues to disagree: saving earlier and more is not enough. A third and even more important factor is the need to deliver positive and decent long-term *real net* return (i.e., net of inflation and fees).

³¹ World Economic Forum White Paper: 'We'll live to 100 – How can we afford it?' May 2017



A simple example will illustrate why saving "more and for longer periods" is not sufficient, and too often even detrimental.

Assuming no inflation, saving 10% of activity income for 30 years (as recommended by Public Authorities, 25-year life expectancy at retirement, gross of fees and taxes) the table below shows that unless long-term net returns are significantly positive (in the upper single digits), saving early and significantly will not provide a decent pension.

Annual net return	Replacement income
negative 1%	10%
Zero	12%
2%	17%
8%	49%

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To achieve *pension adequacy*, retirement benefits altogether (State and private pensions) should amount to at least 70%-80% of late working life gross salary.

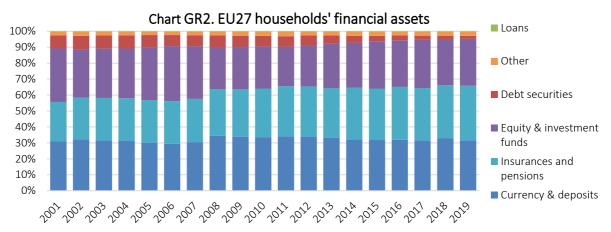
Nevertheless, this is harder and harder to achieve due to ageing populations, higher pension contributions, longer life expectancy, higher discounting rates etc.

There has been a shift from the full reliance on the public scheme of redistribution (tax-funded defined-benefit) to a more capital markets reliant system, where the main pension income stream should come from private pension products. Pension performances are subject to inflation and to tax, which eat into the retirement pot.

Most pension products recently improved but underperformed

Our findings clearly confirm that capital market performances have unfortunately very little to do with the performances of the actual savings products distributed to EU citizens. This is particularly true for long-term and pension savings. The main reason is the fact that most EU citizens do not invest the majority of their savings directly into capital market products (such as equities and bonds), but into "packaged products" (such as investment funds, life insurance contracts and pension products).





Source: BETTER FINANCE based on Eurostat data; 2020 data not yet available

Our research findings show that most long-term and pension savings products did not, on average, return anything close to those of capital markets, and in too many cases even destroying the real value for European pension savers (i.e., provided a negative return after inflation).

Performance: capital markets are not a proxy for retail investments

One could then argue that insurance and pension products have similar returns to a mixed portfolio of equities and bonds, since those are indeed the main underlying investment components of insurance and pension "packaged" products. However, this is not true since the share of packaged products and debt instruments are dominant in most pension portfolios. Realities such as fees and commissions, portfolio turnover rates, manager's risks, etc., invalidate this approach.

Table GR4 and Graph GR5 below show two striking – but unfortunately not uncommon – real examples of this largely ignored reality: capital market performance is not a valid proxy for retail investment performance and the main reasons for this are the fees and commissions charged directly or indirectly to retail customers. The European Commission itself publicly stressed this fact (see footnote 2 above).

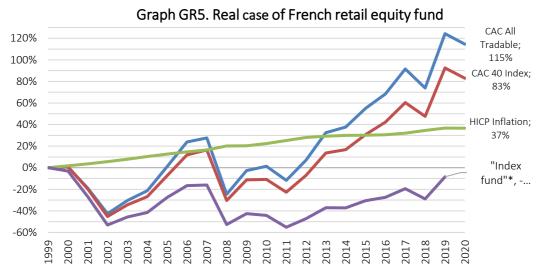
Table GR4. Real case of a Belgian life insurance (branch 23)

Capital markets vs. Belgian individual pension insurance 2000-2020 performance	
Capital markets (benchmark index*) performance	
Nominal performance	275%
Real performance (before tax)	186%
Pension insurance performance (same benchmark)	
Nominal performance	82%
Real performance (before tax)	23%

<u>Source</u>: BETTER FINANCE own computations based on Morningstar public website; *Benchmark is composed of 50% bonds (LP06TREU) and 50% Barclay's Pan-European Aggregate Bond Index + 50% FTSE WORLD TGR



The real case of Graph GR5 illustrates a unit-linked life insurance product (Pillar III), in Belgium. The pension product's nominal return amounted to less than a third of its corresponding capital market benchmark's return.



Source: BETTER FINANCE research, fund manager; * 2000-2003 simulated

The real case above illustrates an investment fund domiciled in France, a so-called retail CAC 40 "index" fund³². The fund actually underperformed the relevant equity index by 101.4 p.p. after 20 years of existence (loss of -8.4% instead of a +83% profit), with the performance gap fully attributable to fees. The fund has also massively destroyed the real value of its clients' savings, as inflation has been almost twice as high as its nominal performance. It is quite surprising that with such a huge return gap vis-à-vis its benchmark, this fund is still allowed to portray itself as an "indextracking" one, and that no warning is to be found on the Key Information Document (KIID) of the fund. Unfortunately, the index fund has been sold to another manager and the 2020 performance is no longer relevant.

European Pension returns outlook

The overall mid-term outlook for the adequacy of European pension savings in 2021 is worrying when one analyses it for each of these main return drivers:

a) It is unlikely that the European bond markets will come any closer to the extraordinary returns of the last 20 years (as we are already seeing stagnation or even signs of a downward trend), due to the continuous fall of interest rates, currently at rock-bottom levels; moreover, the global health crisis has already destroyed the record 2019 capital market returns;

³² Wrapped in an insurance contract as suggested by the distributor.



- b) The negative impact of this foreseeable trend in bond returns on pensions' returns will be reinforced by a higher proportion of bonds being taken up in pension products' portfolios in recent years; this is all the more relevant in light of the monetary policy response to the health-generated recession.
- c) The transparency of cost disclosures is not improving.
- d) While it seemed unlikely that inflation just like interest rates would turn into deflation, and the consequences of the "non-conventional" monetary policies of central banks on possible market "bubbles" are still unchartered, currently inflation (with its known devastating impact on the purchasing power of pension income) is surging, hitting record high after record high.
- e) Taxes on long-term and pension savings do not show any significant downward trend either.

The pan-European Personal Pension (PEPP) product

In an attempt to revitalise voluntary pension savings, the EU engaged in a project to create an EU quality label for personal retirement products, mainly to enable cross-border workers to save simply and efficiently for retirement. Named the pan-European Personal Pension product (PEPP), it is designed as a voluntary/personal pension product (pillar III), and should be:

- portable, allowing the PEPP saver to move across Europe and either continue contributing to his PEPP or switch to a new national sub-account without fees;
- simple, transparent and cost-efficient, embedding proper long-term risk-mitigation techniques; and
- benefiting of tax-incentives in a harmonised manner.

The last two objectives have not been attained – yet. First, taxation is still the sovereign competence of EU Member States and found strong opposition from national Governments, although the Commission and European Parliament have asked or recommended it.³³

Second, EIOPA allowed insurance-based investment products (IBIPs) manufacturers to charge the cost of guarantees separately from the "all inclusive" 1% cap for the basic PEPP.³⁴ What is more, is that the capital protection is a "scam" enshrined by EU law. The fact that EU savers would be informed that their capital (meaning accumulated contributions) would be protected, but only after the deduction of fees and without taking into account inflation, is highly misleading.³⁵

³³ Most recently, the European Parliament's Economic and Monetary Affairs' (ECON) own initiative report on the Further Development of the Capital Markets Union (CMU) does contain a resolution to incentivise and harmonise PEPP tax treatments across the EU; however, at the time of writing, the resolution was not yet final.

³⁴ See EIOPA Final Regulatory Technical Standards (RTS) supplementing Regulation (EU) 2019/1238 on the PEPP: https://www.eiopa.eu/sites/default/files/publications/eiopa-20-500 pepp draft rtss.pdf.

³⁵ See BETTER FINANCE YouTube Video on the "PEPP Capital Protection SCAM".



Graph GR7. Nominal, net and real capital protection



Source: BETTER FINANCE PEPP Level 2 position paper

Pension products have the longest investment horizon, usually until retirement age, which should imply 35 to 40 years of investments. The cumulative effect of inflation, assuming a modest inflation rate, over 40 years would decrease the value of savings by 56%.

What is a "nominal rate" of return?

A *nominal* value and rate represent the actual amount of money (or mathematical result) of an investment. *Nominal returns* or profits in *nominal terms* designate the current entitlement from an investment at a certain point in time.

E.g.: A \leq 100 investment that increase by a quarter will have a nominal value of \leq 125 (nominal profit of \leq 25) or a nominal rate of return of 25%.

In finance, rates are mostly expressed in *nominal* and, usually, *gross* terms. This shows the pure profit generated by an investment before fees, commissions, taxes are deducted and before inflation is adjusted for.

Nominal returns can be recalculated into *real returns* (see right-hand side) by *adjusting for inflation*.

What is a "real rate" of return?

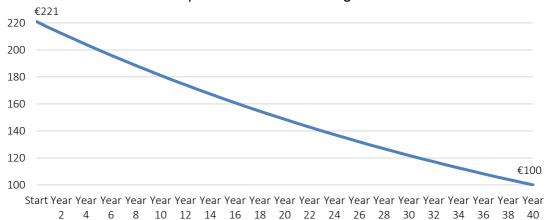
The *real* rate is a nominal rate adjusted by *inflation*. The real return is a "down to earth" indicator because it factors in the practicality (*reality*) of actually using the money:

- If inflation has been positive, then the real value of money will be smaller than the nominal value.
- If inflation has been negative, then the real value of money will be higher than the nominal one.

This is because inflation (or deflation) shows how many goods or services one can buy with the same amount of money at different points in time. Economists call it the *purchasing power* and it calculates whether the same €10 bill earned in 2010 (for instance) can be exchanged for less, the same, or more of the same goods in 2020 (for instance).



Graph GR8. Real value of savings



Source: BETTER FINANCE PEPP Level 2 position paper

BETTER FINANCE highlights and warns about the "money illusion" and how detrimental it is to consider pension savings in nominal terms rather than in **real** terms, i.e., adjusting for inflation.

II. COUNTRY PROFILES

This second part onward analyses each country profile available in this study. Tables GR9 (A and B) include some key indicators of the pension systems in the countries under review in this research report. These indicators, explained below, are representative of the sustainability of a pension system, or otherwise the pressure on State (public) pensions. Our aim is to highlight the importance of additional private pension savings for pension adequacy.

What is old-age dependency ratio?

It is defined as the ratio between the total number of elderly persons when they are generally economically inactive (aged 65 and above) and the number of persons of working age:

- when the ratio is low (e.g., Slovakia with 25% or 1 pensioner to 4 workers), it means that the pressure on the state pension is low;
- when the ratio is high (e.g., Italy with 37% or 1 pensioner to less than 3 workers), it means that the burden on PAYG schemes is high, and it can be alleviated through private pension sources.

What is population ageing trend?

An ageing population means that the number of retirees increases relative to the number of workers. This indicator refers to public (PAYG) pensions.

The effect is that the same pension contributions need to pay for a higher number of pensioners, which can make it difficult for the state pension to ensure an adequate level of retirement income stream.

What is the <u>projected old-age</u> dependency ratio?

It shows how the number of pensioners to working people will evolve in time.

If the old-age dependency ratio is now, on average, 1-to-3, by 2050 this level will be for most countries in this Report above 50%. In other words, every state pension will depend on the level of contributions of almost two workingage individuals.



What is the net equity of households?

It represents the value of technical (mathematical) provisions insurance and pension fund providers hold to pay future pension liabilities (entitlements of savers). This indicator is expressed both in nominal terms (in € billion) and as a percentage of the GDP for 2019. Therefore:

- a high value-to-GDP rate of *net equity of* households reflects well established privately funded systems, indicating a lower dependency on state pensions;
- a low value-to-GDP shows either that the private system is relatively new (as in Romania or Bulgaria) or that households do not contribute too much to pension funds and life insurances, relying more on state pensions.

What is the <u>aggregate replacement ratio for</u> pensions?

It represents the ratio between to median individual pension income of population aged 65-74 relative to median individual earnings from work of population aged 50-59, excluding other social benefits.

Note: In the previous editions of this report, the indicator used was *net pension replacement rate* – aggregated by the OECD – which was discontinued in 2019. Thus, the research team replaced it with the *aggregate replacement ratio* for pensions computed by Eurostat.

Table GR9(A). EUROPEAN UNION (EU27) at the end of 2019, except otherwise provided									
Net equity of households in pension funds reserves (in € bln)	4,232	Net equity of households in pension funds reserves as % of GDP	30.30%						
Net equity of households in life insurance reserves (in € bln)	5,226	Net equity of households in life insurance reserves as % of GDP	37.40%						
Active population (mil.), 2020	214.4	Old-Age dependency ratio, old (% of working population)	32.40%						
Population ageing trend (2020-2050)	61%	Projected old-age dependency ratio by 2050	52%						
Aggregate replacement ratio for pensions (excl. social benefits), total, 2019									

Source: for both parts, BETTER FINANCE own composition based on OECD, WorldBank, Eurostat data

Table GR9(B). Country Profiles (end 2019, except otherwise provided)									
Austria									
Net equity of households in pension funds reserves (in € bln)	60	Net equity of households in pension funds reserves as % of GDP	15.10 %						
Net equity of households in life insurance reserves (in € bln)	83	Net equity of households in life insurance reserves as % of GDP	20.90 %						
Active population (mil.), 2020	4.6	Old-Age dependency ratio, old (% of working population), 2020	28.93 %						
Population ageing trend (2020-2050)	63%	Projected old-age dependency ratio by 2050	47.20 %						
Aggregate replacement ratio for per	nsions (ex	ccl. social benefits), total, 2020	61%						
Belgium									
Net equity of households in pension funds reserves (in € bn), 2020	120	Net equity of households in pension funds reserves as % of GDP, 2020	27%						



Net equity of households in life insurance reserves (in € bn), 2020	204	Net equity of households in life insurance reserves as % of GDP, 2020	45.20 %
Active population (mil.) 2020	5.1	Old-Age dependency ratio, old (% of working population), 2020	30.22 %
Population ageing trend (2020-2050)	48%	Projected old-age dependency ratio by 2050	44.80 %
Aggregate replacement ratio for per	nsions (ex	xcl. social benefits), total, 2020	46%
Bulgaria			
Net equity of households in pension funds reserves (in € bn)	8	Net equity of households in pension funds reserves as % of GDP	13.20 %
Net equity of households in life insurance reserves (in € bn)	1	Net equity of households in life insurance reserves as % of GDP	1.30 %
Active population (mil.), 2020	3.2	Old-Age dependency ratio, old (% of working population), 2020	33.62
Population ageing trend (2020-	64%	Projected old-age dependency	55.00
2050)	sions /	ratio by 2050	2.40/
Aggregate replacement ratio for per	isions (e)	xci. sociai peneiits), totai, 2020	34%
Croatia		Net a suite et la cue de al de in	
Net equity of households in pension funds reserves (in € bn)	15	Net equity of households in pension funds reserves as % of GDP	27.70 %
Net equity of households in life insurance reserves (in € bn)	3	Net equity of households in life insurance reserves as % of GDP	4.70 %
Active population (mil.), 2020	1.8	Old-Age dependency ratio, old (% of working population), 2020	33.10 %
Population ageing trend (2020- 2050)	59%	Projected old-age dependency ratio by 2050	52.50 %
Aggregate replacement ratio for per	nsions (ex	·	39%
Denmark			
Net equity of households in pension funds reserves (in € bn)	212	Net equity of households in pension funds reserves as % of GDP	68.00 %
Net equity of households in life insurance reserves (in € bn)	293	Net equity of households in life insurance reserves as % of GDP	93.90 %
Active population (mil.), 2020	3.0	Old-Age dependency ratio, old (% of working population), 2020	31.73 %
Population ageing trend (2020- 2050)	37%	Projected old-age dependency ratio by 2050	43.40 %
Aggregate replacement ratio for per	nsions (ex	·	45%
Estonia			
Net equity of households in pension funds reserves (in € bn)	5	Net equity of households in pension funds reserves as % of GDP	16.80 %



Net equity of households in life insurance reserves (in € bn)	1	Net equity of households in life insurance reserves as % of GDP	2%
Active population (mil.), 2020	0.7	Old-Age dependency ratio, old (% of working population), 2020	32.27 %
Population ageing trend (2020-2050)	52%	Projected old-age dependency ratio by 2050	49.10 %
Aggregate replacement ratio for pe	ensions (e:	xcl. social benefits), total, 2020	43%
France			
Net equity of households in pension funds reserves (in € bn)	0	Net equity of households in pension funds reserves as % of GDP	0%
Net equity of households in life insurance reserves (in € bn)	2,084	Net equity of households in life insurance reserves as % of GDP	85.90 %
Active population (mil.), 2020	30.0	Age dependency ratio, old (% of working-age population),2020	33.69 %
Population ageing trend (2020-2050)	46%	Projected old-age dependency ratio by 2050	49%
Aggregate replacement ratio for pe	ensions (e	xcl. social benefits), total, 2019	65%
Germany			
Net equity of households in pension funds reserves (in € bn)	911	Net equity of households in pension funds reserves as % of GDP	26%
Net equity of households in life insurance reserves (in € bn)	1,069	Net equity of households in life insurance reserves as % of GDP	31.00 %
Active population (mil.), 2020	43.4	Old-Age dependency ratio, old (% of working population), 2020	33.70 %
Population ageing trend (2020-2050)	43%	Projected old-age dependency ratio by 2050	48.30 %
Aggregate replacement ratio for pe	ensions (e	xcl. social benefits), total, 2019	44%
Italy			
Net equity of households in pension funds reserves (in € bn)	238	Net equity of households in pension funds reserves as % of GDP	13.30 %
Net equity of households in life insurance reserves (in € bn)	808	Net equity of households in life insurance reserves as % of GDP	45%
Active population (mil.), 2020	25.1	Old-Age dependency ratio, old (% of working population), 2020	36.57 %
Population ageing trend (2020-2050)	68.15 %	Projected old-age dependency ratio by 2050	62%
Aggregate replacement ratio for pe	ensions (e:	xcl. social benefits), total, 2019	73%
Latvia			
Net equity of households in pension funds reserves (in € bn)	5	Net equity of households in pension funds reserves as % of GDP	16.00 %



Net equity of households in life insurance reserves (in € bn)	1	Net equity of households in life insurance reserves as % of GDP	2.40 %
Active population (mil.), 2020	0.98	Old-Age dependency ratio, old (% of working population), 2020	32.90 %
Population ageing trend (2020-	72%	Projected old-age dependency	56.70
2050)	asians (a)	ratio by 2050	200/
Aggregate replacement ratio for per Lithuania	nsions (e)	kci. social benefits), total, 2019	38%
Littiualila		Net equity of households in	
Net equity of households in pension funds reserves (in € bn)	4	pension funds reserves as % of	8.30 %
Net equity of households in life insurance reserves (in € bn)	1	Net equity of households in life insurance reserves as % of GDP	2%
Active population (mil.), 2020	1.5	Old-Age dependency ratio, old (% of working population), 2020	32.26 %
Population ageing trend (2020- 2050)	75%	Projected old-age dependency ratio by 2050	56.50 %
Aggregate replacement ratio for per	nsions (ex	xcl. social benefits), total, 2019	43%
Netherlands			
Net equity of households in pension funds reserves (in € bn)	1,725	Net equity of households in pension funds reserves as % of GDP*	212.9 0%
Net equity of households in life insurance reserves (in € bn)	170	Net equity of households in life insurance reserves as % of GDP*	21.00 %
Active population (mil.), 2020	9.4	Old-Age dependency ratio, old (% of working population), 2020	31%
Population ageing trend (2020-2050)	44%	Projected old-age dependency ratio by 2050	45%
Aggregate replacement ratio for per	nsions (ex	kcl. social benefits), total, 2020	51%
Poland			
Net equity of households in pension funds reserves (in € bn), 2020	40	Net equity of households in pension funds reserves as % of GDP, 2020	7.80 %
Net equity of households in life insurance reserves (in € bn), 2020	15	Net equity of households in life insurance reserves as % of GDP, 2020	3.00
Active population (mil.), 2020	18.2	Old-Age dependency ratio, old (% of working population), 2020	28.37 %
Population ageing trend (2020- 2050)	84%	Projected old-age dependency ratio by 2050	52.20 %
Aggregate replacement ratio for per	nsions (ex	ccl. social benefits), total, 2019	60%
Romania			
Net equity of households in pension funds reserves (in € bn), 2020	16	Net equity of households in pension funds reserves as % of GDP, 2020	7.40 %



Net equity of households in life insurance reserves (in € bn), 2020	2	Net equity of households in life insurance reserves as % of GDP, 2020	0.90 %
Active population (mil.), 2020	9.0	Old-Age dependency ratio, old (% of working population), 2020	29.47 %
Population ageing trend (2020-2050)	85%	Projected old-age dependency ratio by 2050	54.50 %
Aggregate replacement ratio for pe	-	41%	
Slovakia			
Net equity of households in pension funds reserves (in € bn), 2020	13	Net equity of households in pension funds reserves as % of GDP, 2020	14%
Net equity of households in life insurance reserves (in € bn), 2020	5	Net equity of households in life insurance reserves as % of, 2020	5%
Active population (mil.), 2020	2.7	Old-Age dependency ratio, old (% of working population), 2020	24.65 %
Population ageing trend (2020-2050)	109%	Projected old-age dependency ratio by 2050	51.40 %
Aggregate replacement ratio for pe	nsions (ex	kcl. social benefits), total, 2019	53%
Spain			
Net equity of households in pension funds reserves (in € bn), 2020	176	Net equity of households in pension funds reserves as % of GDP, 2020	16%
Net equity of households in life insurance reserves (in € bn), 2020	200	Net equity of households in life insurance reserves as % of GDP, 2020	18%
Active population (mil.), 2020	22.8	Old-Age dependency ratio, old (% of working population), 2020	30.44 %
Population ageing trend (2020-2050)	95%	Projected old-age dependency ratio by 2050	59.50 %
Aggregate replacement ratio for pe	nsions (ex	kcl. social benefits), total, 2019	70%
Sweden			
Net equity of households in pension funds reserves (in € bn), 2020	531	Net equity of households in pension funds reserves as % of GDP, 2020	107.1 0%
Net equity of households in life insurance reserves (in € bn), 2020	116	Net equity of households in life insurance reserves as % of GDP, 2020	24%
Active population (mil.), 2020	5.5	Old-Age dependency ratio, old (% of working population), 2020	32.76 %
Population ageing trend (2020-2050)	19.04 %	Projected old-age dependency ratio by 2050	39.00 %
Aggregate replacement ratio for per	nsions (ex	xcl. social benefits), total, 2020	55%



United Kingdom								
Net equity of households in pension funds reserves (in € bn)	3,571	Net equity of households in pension funds reserves as % of GDP*	137.2 0%					
Net equity of households in life insurance reserves (in € bn)	830	Net equity of households in life insurance reserves as % of GDP*	31.90 %					
Active population (mil.), 2020	34.7	Old-Age dependency ratio, old (% of working population), 2020	29.30 %					
Population ageing trend (2020-2050)	-	Projected old-age dependency ratio by 2050	-					
Aggregate replacement ratio for pe	Aggregate replacement ratio for pensions (excl. social benefits), total, 2018							

Source: Eurostat; OECD; World Bank; own composition

Table GR10. Funding level of private pension systems Pension Funds' assets (2020) All retirement vehicles' assets (2020)											
	% of GDP	in € mil	% of GDP	in € mil							
Austria	7%	24,969		n.a							
Belgium	9%	41,959	37%	169,071							
Bulgaria	15%	8,900	15%	8,900							
Croatia	35%	16,959	35%	16,959							
Denmark	58%	182,588	239%	436,290							
Estonia	20%	5,302	20%	5,302							
France	3%	58,500	11%	254,241							
Germany	8%	269,582		n.a.							
Italy	10%	161,658	13%	209,158							
Latvia	2%	610	19%	5,707							
Lithuania	10%	4,663	10%	4,663							
Netherlands	210%	1,679,386		n.a.							
Poland	6%	32,420	6%	32,420							
Romania	7%	16,041	7%	16,041							
Slovak Republic	14%	13,195	14%	13,195							
Spain	10%	117,359	14%	161,373							
Sweden	4%	19,719	95%	468,546							
United Kingdom	119%	2,641,370		n.a.							

<u>Source</u>: OECD, 2021



In some countries the level of accumulated assets in pension funds is almost the same as that of the total value of pension vehicles (such as in Italy, Bulgaria or Romania), in others we see that the total amount of funded retirement products is up to four times higher than the amount for pension funds (Denmark -219% of GDP).

III. RETURN ATTRIBUTION

Pension returns drivers

This report seeks to explain the (often poor) performance of pension vehicles, especially when compared to capital market returns. The underperformance (compared to a benchmark) of most pension vehicles can be explained by several return <u>drivers</u>:

- **inflation**, which over a full contribution period (40 years) at a modest rate can erode even more than 50% of nominal returns,
- pension portfolios' asset allocation and performance,
- the asset managers' skills in terms of picking securities and market timing,
- the **investment charges** deducted by asset managers and other financial intermediaries, to a great extent from net real returns of private pensions,
- ultimately by the tax burden.

These return drivers are analysed separately in the following sections.

Inflation

As explained in the previous section, inflation is a measurement for the *purchasing power of money* over time: positive inflation rate means that the *real value* of our money decreases over time; negative inflation rate means that the *real value* of our money increases.

For several of the countries analysed in this research report, inflation rates were significant and consequently had a severe impact on returns in real terms over the periods in review. One has to keep in mind that even for those countries with moderate inflation, the compound effect over long periods, as applicable to the case of retirement savings, can lead to considerable losses in purchasing power.



	Table GR11(A). Inflation in Eurozone Member States (in %)											
Year	AUSTRIA	BELGIUM	ESTONIA	FRANCE	GERMANY	ITALY	LATVIA	LITHUANIA	NETHERLANDS	SLOVAKIA	SPAIN	
2000	1.8%	3.0%	5.0%	1.8%	2.2%	2.7%	1.7%	1.7%	2.9%	8.4%	4.0%	
2001	1.8%	1.9%	4.2%	1.5%	1.4%	2.3%	3.2%	2.0%	5.1%	6.7%	2.5%	
2002	1.7%	1.3%	2.7%	2.2%	1.1%	3.0%	1.5%	-0.9%	3.2%	3.2%	4.0%	
2003	1.3%	1.6%	1.2%	2.4%	1.1%	2.5%	3.6%	-1.3%	1.6%	9.4%	2.7%	
2004	2.5%	2.0%	4.8%	2.2%	2.3%	2.3%	7.3%	2.8%	1.3%	5.9%	3.3%	
2005	1.5%	2.8%	3.7%	1.8%	2.1%	2.0%	7.1%	3.0%	2.0%	3.8%	3.7%	
2006	1.6%	2.1%	5.1%	1.7%	1.4%	2.1%	6.7%	4.6%	1.7%	3.7%	2.7%	
2007	3.5%	3.1%	9.7%	2.8%	3.1%	2.8%	14.0%	8.2%	1.6%	2.5%	4.3%	
2008	1.5%	2.7%	7.5%	1.2%	1.1%	2.4%	10.4%	8.5%	1.7%	3.5%	1.4%	
2009	1.1%	0.3%	-1.9%	1.0%	0.9%	1.1%	-1.4%	1.2%	0.7%	0.0%	0.9%	
2010	2.2%	3.4%	5.4%	2.0%	1.8%	2.1%	2.4%	3.6%	1.8%	1.3%	2.9%	
2011	3.4%	3.2%	4.1%	2.7%	2.2%	3.7%	3.9%	3.5%	2.5%	4.6%	2.3%	
2012	2.9%	2.1%	3.6%	1.5%	2.1%	2.6%	1.6%	2.9%	3.4%	3.4%	3.0%	
2013	2.0%	1.2%	2.0%	0.8%	1.2%	0.6%	-0.4%	0.5%	1.4%	0.4%	0.3%	
2014	0.8%	-0.4%	0.1%	0.1%	0.1%	0.0%	0.3%	-0.1%	-0.1%	-0.1%	-1.1%	
2015	1.1%	1.5%	-0.2%	0.3%	0.2%	0.1%	0.4%	-0.2%	0.5%	-0.5%	-0.1%	
2016	1.6%	2.2%	2.4%	0.8%	1.6%	0.5%	2.1%	2.0%	0.7%	0.2%	1.4%	
2017	2.3%	2.1%	3.8%	1.2%	1.5%	1.0%	2.2%	3.8%	1.2%	2.0%	1.2%	
2018	1.7%	2.2%	3.3%	1.9%	1.7%	1.2%	2.5%	1.8%	1.8%	1.9%	1.2%	
2019	1.8%	0.9%	1.8%	1.6%	1.5%	0.5%	2.1%	2.7%	2.8%	3.2%	0.8%	
2020	1.0%	0.4%	-0.9%	0.03%	-0.7%	-0.3%	-0.5%	-0.1%	0.9%	1.8%	-0.6%	
AVG	1.9%	1.9%	3.2%	1.5%	1.4%	1.7%	3.3%	2.4%	1.8%	3.1%	1.9%	

Source: BETTER FINANCE own composition based on Eurostat data



Tabl	e GR11(I	B). Inflation	on in non-	Eurozone	Membe	r States	(in %)
Year	BULGARIA	CROATIA	DENMARK	POLAND	ROMANIA	SWEDEN	Ä
2000	11.3%	5.9%	2.4%	8.4%	40.7%	1.3%	0.8%
2001	4.8%	2.4%	2.0%	3.5%	30.3%	3.2%	1.1%
2002	3.8%	2.8%	2.6%	0.8%	17.8%	1.7%	1.6%
2003	5.6%	2.2%	1.2%	1.7%	14.2%	1.8%	1.3%
2004	4.0%	2.0%	1.0%	4.3%	9.3%	0.9%	1.6%
2005	7.4%	4.0%	2.3%	0.8%	8.7%	1.2%	1.9%
2006	6.1%	2.1%	1.6%	1.4%	4.9%	1.5%	3.0%
2007	11.6%	5.4%	2.4%	4.3%	6.7%	2.5%	2.1%
2008	7.2%	2.8%	2.5%	3.3%	6.4%	2.1%	3.0%
2009	1.6%	1.8%	1.1%	3.9%	4.7%	2.8%	2.9%
2010	4.4%	1.7%	2.8%	2.9%	7.9%	2.1%	3.6%
2011	2.0%	2.1%	2.4%	4.6%	3.2%	0.4%	4.3%
2012	2.8%	4.4%	1.9%	2.1%	4.6%	1.0%	2.6%
2013	-0.9%	0.5%	0.5%	0.6%	1.3%	0.4%	2.0%
2014	-2.0%	-0.1%	0.1%	-0.7%	1.0%	0.3%	0.5%
2015	-0.9%	-0.3%	0.3%	-0.4%	-0.7%	0.7%	0.2%
2016	-0.5%	0.7%	0.3%	0.9%	-0.1%	1.7%	1.6%
2017	1.8%	1.3%	0.8%	1.7%	2.6%	1.7%	2.9%
2018	2.3%	1.0%	0.7%	0.9%	3.0%	2.2%	2.1%
2019	3.1%	1.3%	0.8%	3.0%	4.0%	1.7%	1.3%
2020	0.02%	-0.3%	0.4%	3.4%	1.8%	0.6%	-
AVG	3.5%	2.1%	1.4%	2.4%	7.8%	1.5%	-

Source: BETTER FINANCE own composition based on Eurostat data

	Table GR11(C). EU27 inflation											
2000	2001	2002	2003	2004	2005							
4.0%	3.0%	2.5%	2.2%	2.6%	2.4%							
2006	2007	2008	2009	2010	2011							
2.1%	3.4%	2.0%	1.3%	2.5%	2.8%							
2012	2013	2014	2015	2016	2017							
2.3%	0.8%	-0.2%	0.2%	1.1%	1.4%							
2018	2019	2020	AVG									
1.6%	1.6%	0.2%	1.9%									

<u>Source</u>: Eurostat HICP monthly index (2015=100, prc_hicp_aind), annual averages (AAVG) are calculated by BETTER FINANCE.



Why is inflation calculated per country/region?

Inflation is a relative term and depends on the "area" where one lives.

e.g.: €10 earned in 2010 will be worth more in 2020 in Germany than in Austria.

In 2020, we can observe deflation (negative inflation) in several countries, which means that the purchasing power of the currency increased over the course of the year. This is the case for Estonia, Germany, Italy, Latvia, Lithuania, Spain, and Croatia. With a few exceptions, the other countries in scope have recorded very low inflation rates. This can be attributed to decreasing prices of consumer goods and services, but also to lower economic output and pressure on the labour market. From a central bank's point of view, deflation can be alarming as it reveals an undesired state of the economy. At the same time, deflation slightly increases real returns. In real terms, a 5% nominal return in 2020 actually means 5.53% given a deflation of -0.5%.

Aiming to maintain inflation rates below, but close to, 2%, the European Central Bank undertook considerable monetary policy efforts to bring the rates back to the desired levels.

Table GR12. Public sector deficit and debt (in %)												
Public Sector Deficit as a % of GDP							Public Debt as a % of GDP					
	2015	2016	2017	2018	2019	2020	2015	2016	2017	2018	2019	2020
EU	-1.9	-1.4	-0.8	-0.4	-0.5	-6.9	84.8	84.0	81.5	79.5	77.5	90.7
Austria	-1.0	-1.5	-0.8	0.2	0.6	-8.9	84.9	82.8	78.5	74	70.5	83.9
Belgium	-2.4	-2.4	-0.7	-0.8	-1.9	-9.4	105.2	105.0	102.0	99.8	98.1	114.1
Bulgaria	-1.7	0.2	1.2	2.0	2.1	-3.4	26.0	29.3	25.3	22.3	20.2	25
Croatia	-3.5	-0.9	0.8	0.2	0.3	-7.4	84.3	80.8	77.6	74.3	72.8	88.7
Denmark	-1.2	0.1	1.8	0.7	3.8	-1.1	39.8	37.2	35.9	34	33.3	42.2
Estonia	0.1	-0.4	-0.7	-0.6	0.1	-4.9	10.0	9.9	9.1	8.2	8.4	18.2
France	-3.6	-3.6	-3.0	-2.3	-3.1	-9.2	95.6	98.0	98.3	98	97.6	115.7
Germany	1.0	1.2	1.4	1.8	1.5	-4.2	72.3	69.3	65.1	61.8	59.7	69.8
Italy	-2.6	-2.4	-2.4	-2.2	-1.6	-9.5	135.3	134.8	134.1	134.4	134.6	155.8
Latvia	-1.4	0.2	-0.8	-0.8	-0.6	-4.5	37.1	40.4	39.0	37.1	37	43.5
Lithuania	-0.3	0.2	0.5	0.6	0.5	-7.4	42.5	39.7	39.1	33.7	35.9	47.3
Netherlands	-2.1	0.0	1.3	1.4	1.8	-4.3	64.7	61.9	56.9	52.4	48.7	54.5
Poland	-2.6	-2.4	-1.5	-0.2	-0.7	-7	51.3	54.2	50.6	48.8	45.6	57.5
Romania	-0.6	-2.6	-2.6	-2.9	-4.4	-9.2	37.8	37.3	35.1	34.7	35.3	47.3
Slovakia	-2.7	-2.6	-1.0	-1.0	-1.3	-6.2	51.9	52.4	51.5	49.6	48.2	60.6
Spain	-5.2	-4.3	-3.0	-2.5	-2.9	-11	99.3	99.2	98.6	97.4	95.5	120
Sweden	0.0	1.0	1.4	0.8	0.6	-3.1	43.7	42.3	40.7	38.9	35	39.9
UK	-4.6	-3.3	-2.5	-2.2	-2.1	-	86.9	86.8	86.2	85.7	85.4	-

Source: Eurostat: (1) Public Sector Deficit as a % of GDP; (2) Public Debt as a % GDP

In 2020, public spending on healthcare and economic support (due to the COVID-lockdowns) have put strains on state coffers. All countries analysed have recorded deficits, ranging from 1.1% of GDP (Denmark) to 11% of GDP (Spain). As such, public debt has increased everywhere: at EU27 level,



public debt increased by 13.2 p.p., and in the countries analysed the public debt increase ranges between 4.8 p.p. (Bulgaria) to 24.5 p.p. (Spain).

We recall the two criteria concerning public deficit and debt deriving from the Maastricht Treaty, i.e., EU countries should not exceed:

- "-3% ratio of the planned or actual government deficit to gross domestic product at market prices";³⁶
- "60% for the ratio of government debt to gross domestic product at market prices".³⁷

In this light, more than half of the countries analysed are still under the 60% threshold and 16 out of the 17 have exceeded the 3% deficit threshold. Data for the UK is no longer available from Eurostat, so it was excluded from the analysis.

Asset Allocation

There are striking differences between the asset allocation of pension funds across countries and products.

Equities dominate only in Poland and Lithuania, being the only two jurisdictions where pension funds are more than 50% invested in shares. Bonds are the main portfolio component in 8 out of 10 countries, and at least 40% in another 6 countries. In the UK, Germany, Spain and Slovakia at least a third of the capital is invested in collective investment scheme units or other instruments; cash and deposits are marginally used, mostly for short-term liquidity purposes.

The average portfolio composition remained almost constant, with a slight shift from liquidity and bonds to collective investment schemes (11% in 2015 to 15% in 2020) across the jurisdictions analysed in this report.

The decrease in government bond interest rates since 1999 have had a positive impact on outstanding assets, especially in countries where this asset class dominates, but it reduces the capacity to provide a good remuneration on new investment flows. The downside, starting in 2019, is that yields for sovereign bonds have started to turn negative.

In this edition we also continue to observe striking differences between pension funds' asset allocations across European countries as shown by the following table:³⁸

³⁶ Article 1 of the Protocol No. 12 on the excessive deficit procedure of the Treaty on European Union, OJ C 115, 9.5.2008, p. 279–280.

³⁷ Ibid.

³⁸ We could not find any available data for France.



Table GR13(A). Pen	sion funds' asset al	location, [2020,	in % of tot	al assets]
Country	Year	Cash and deposits	Bills and bonds	Equities	Other
	2005	3%	53%	37%	4%
	2016	9%	46%	33%	12%
Austria	2017	7%	44%	35%	13%
Austria	2018	8%	45%	33%	14%
	2019	7%	43%	34%	16%
	2020	2%	32%	29%	37%
	2005	2%	6%	9%	78%
	2010	7%	43%	38%	13%
	2015	4%	44%	42%	10%
Belgium	2016	N/A	N/A	N/A	N/A
beigiuiii	2017	5%	45%	43%	7%
	2018	6%	47%	41%	5%
	2019	2%	40%	42%	15%
	2020	3%	46%	38%	13%
	2015	12%	65%	19%	4%
	2016	16%	63%	17%	4%
Dedenie	2017	6%	61%	17%	16%
Bulgaria	2018	9%	57%	17%	17%
	2019	8%	66%	12%	14%
	2020	8%	61%	12%	19%
	2015	3%	73%	24%	0%
	2016	5%	72%	22%	1%
	2017	4%	73%	22%	0%
Croatia	2018	6%	72%	21%	1%
	2019	2%	72%	25%	1%
	2020	4%	69%	26%	1%
	2005	1%	50%	26%	21%
	2010	3%	42%	5%	50%
	2015	0%	63%	18%	19%
	2016	0%	62%	17%	21%
Denmark	2017	1%	59%	19%	21%
	2018	0%	59%	21%	19%
	2019	0%	59%	21%	19%
	2020	0%	52%	21%	27%
	2010	9%	17%	4%	69%
	2015	20%	48%	31%	0%
	2016	23%	43%	34%	0%
Estonia	2017	4%	59%	36%	0%
	2018	3%	62%	34%	1%
	2019	4%	56%	40%	0%
	2020	3%	48%	49%	0%
France	2020	2%	68%	12%	18%



	2005	3%	31%	35%	2%
	2010	2%	46%	5%	46%
	2015	4%	54%	5%	38%
	2016	4%	51%	6%	39%
Germany	2017	4%	50%	6%	40%
	2018	4%	49%	5%	41%
	2019	4%	47%	6%	43%
	2020	3%	46%	7%	44%
	2005	5%	37%	10%	17%
	2010	6%	47%	11%	36%
	2010	4%	50%	20%	27%
Italy	2016	4%	49%	20%	26%
	2017	6%	45%	21%	28%
	2018	6%	45%	19%	30%
	2019	6%	45%	21%	28%
	2020	6%	44%	23%	28%
	2015	19%	46%	35%	1%
	2016	12%	61%	23%	4%
Latvia	2017	10%	57%	29%	4%
	2018	6%	42%	51%	1%
	2019	8%	59%	31%	2%
	2020	10%	56%	31%	3%
	2015	9%	51%	38%	2%
	2016	9%	46%	41%	1%
Lithuania	2017	5%	46%	46%	2%
Litilualila	2018	7%	47%	44%	2%
	2019	2%	20%	75%	3%
	2020	2%	21%	74%	3%
	2005	2%	41%	46%	4%
	2010	4%	56%	20%	20%
	2015	3%	46%	38%	13%
	2016	2%	45%	39%	14%
NL*	2017	3%	48%	46%	2%
	2018	3%	51%	44%	2%
	2019	3%	50%	46%	0%
	2020	3%	52%	45%	0%
	2005	4%	63%	32%	0%
	2010	3%	59%	36%	1%
	2015	7%	10%	82%	0%
Poland	2016	7%	9%	83%	1%
	2017	6%	9%	85%	0%
	2018	6%	9%	85%	0%
	2019	7%	10%	82%	0%
	2020	4%	11%	85%	0%



	2010	7%	80%	12%	0%
	2015	5%	73%	22%	0%
	2016	7%	71%	22%	0%
Romania	2017	9%	68%	23%	0%
	2018	8%	72%	20%	0%
	2019	4%	71%	25%	0%
	2020	1%	74%	25%	0%
	2005	78%	11%	7%	4%
	2010	27%	71%	1%	0%
	2015	17%	78%	2%	2%
Slovakia	2016	12%	80%	3%	5%
	2017	12%	58%	2%	28%
	2018	11%	58%	2%	28%
	2019	11%	57%	3%	30%
	2020	5%	59%	3%	33%
	2005	5%	58%	19%	18%
	2010	19%	58%	12%	11%
	2015	17%	62%	11%	9%
Consider	2016	15%	64%	14%	7%
Spain	2017	11%	47%	13%	28%
	2018	10%	48%	13%	29%
	2019	8%	44%	14%	33%
	2020	9%	44%	14%	34%
	2005	1%	58%	34%	7%
	2010	N/A	N/A	N/A	N/A
	2015	2%	67%	18%	13%
	2016	N/A	N/A	N/A	N/A
Sweden	2017	N/A	N/A	N/A	N/A
	2018	N/A	N/A	N/A	N/A
	2019	2%	45%	24%	29%
	2020	2%	42%	26%	30%
	2005	3%	19%	39%	27%
	2010	N/A	N/A	N/A	N/A
	2015	2%	34%	20%	43%
UK	2016	4%	43%	22%	31%
	2017 2018	2% 2%	28% 30%	13% 9%	57% 59%
			30%	9%	59%
	2019	2%	30/0	370	39/0
AVG 2020	2019	2% 2%	45%	26%	27%

Sources: OECD Pension Funds in Figures Preliminary Data 2021;



The asset allocation data in this table include both direct investments in cash and deposits, bills and bonds (both sovereign and corporate), equities and indirect investments through collective investment schemes (investment funds such as UCITS³⁹ or AIF⁴⁰) and other assets, such as loans, land and buildings, real estate investment trusts (REITS), hedge funds, derivatives, commodities and precious metals, insurance contracts, money market instruments, private equity funds and other structured (unallocated) products. Data for the asset allocation in collective investment schemes is not available for all jurisdictions and all years.

On average in 2020 as well, most pension funds employed a conservative/defensive investment strategy, investing more than half (51%) of the capital in debt securities (bills and bonds). Equities are the second largest position with an average of 28%.

However, there are significant deviations from the average:

- In countries such as Germany, Spain or Slovakia, the equity allocation is of small significance (7%, 14%, and 3%);
- In countries such as Poland and Lithuania, most assets are invested in equity (74% and 85%).

Та	Table GR13(B). Evolution of average asset allocation in pension funds				
	Cash & Deposits	Bills & bonds	Equity	Other (incl. CIS)	
2015	8%	54%	27%	11%	
2016	9%	54%	26%	11%	
2017	6%	50%	29%	15%	
2018	6%	50%	29%	16%	
2019	5%	48%	30%	17%	
2020	4%	48%	30%	18%	
2015-2020	6%	51%	28%	15%	

Source: own computations based on Table GR13(A).

So far, we were not able to obtain information on ESG-factored investments to correspond to the current reporting standards.

Asset performance

Concerning the recent *positive capital markets returns (1999 – 2020)*, equity markets managed to rebound well above the February 2020 level by the time of writing this report. Since the beginning of the 21^{st} century, capital market returns have been positive (moderately for equities while strongly for bonds):

³⁹ "UCITS" stands for Undertakings for Collective Investment in Transferable Securities, which is the most common legal form mutual funds in the EU take, in particular because of the *passporting rights*.

⁴⁰ "AIFs" stand for Alternative Investment Funds, which are all the non-UCITS funds.



- Over the last 20 years, on a nominal basis (before taking inflation into account), world stock markets have grown in value (in €) by 151%,⁴¹ where the US stock market has grown by 176%⁴² and the European ones by 74% in the last 21 years;⁴³
- On a real basis (net of inflation), European stock markets (MSCI Europe NR) returned to positive cumulated performances by 2013, and once again reached significant levels by 2017 (+32%) and reached +17.4% in 2019.

Equity markets

Equity returns are more volatile in the short-term and hence need to be observed with a long-term perspective in mind. The real return calculations in this report date back to 31/12/1999 at the earliest, so we take a look at how equity markets performed over that same period. Overall, the 21st century began with one of the most severe bear markets in history and faced, in conjunction with the downward cycle of 2007-2008, two longer-lasting upward cycles from 2003-2006 and 2009-2019. Data in the table below is calculated based on gross performances (*nominal return*), then adjusted by inflation (*real return*).

Table GR14. Historical Returns on Equity Markets, yearly average				
Country	Period	Nominal Return	Real return	
Austria	(2000-2020)	3.2%	1.25%	
Belgium	(2000-2020)	0.44%	-1.60%	
Bulgaria	(2006-2020)	-9.10%	-3.61%	
Croatia	(2003-2020)	5.24%	2.75%	
Denmark	(2000-2020)	10.78%	9.20%	
Estonia	(2000-2020)	11.95%	7.90%	
Europe (EU27)	(2000-2020)	0.25%	-1.74%	
France	(2000-2020)	-0.30%	-1.85%	
Germany	(2000-2020)	3.29%	1.84%	
Italy	(2000-2020)	-3.05%	-4.89%	
Latvia	(2001-2020)	10.45%	6.12%	
Lithuania	(2001-2020)	12.0%	8.6%	
Netherlands	(2000-2020)	-0.34%	-2.4%	
Poland	(2000-2020)	5.16%	2.5%	
Romania	(2000-2020)	10.58%	1.06%	
Slovakia	(2000-2020)	7.40%	4.42%	
Spain	(2000-2020)	-0.91%	-2.96%	
Sweden	(2000-2020)	1.43%	-0.20%	

 $\underline{\textit{Sources}} : \mathsf{MSCI}, \mathsf{Yahoo!} \ \mathsf{Finance}; \ \mathsf{Investing.com}; \ \mathsf{NASDAQ} \ \mathsf{Baltic}; \ \mathsf{Bucharest} \ \mathsf{Stock} \ \mathsf{Exchange}; \ \mathsf{GPW}$

Since not all equity indexes have the same coverage or data availability, it is difficult to perfectly compare the performances of the national equity markets. Most of the equity indices recorded negative nominal returns in 2020, ranging between -14.67% to -3.19%; the rest delivered positive

⁴¹ As measured by the MSCI All Country World Index (ACWI) Net Returns denominated in €.

⁴² As measured by the MSCI USA Net Returns Index, calculated in €.

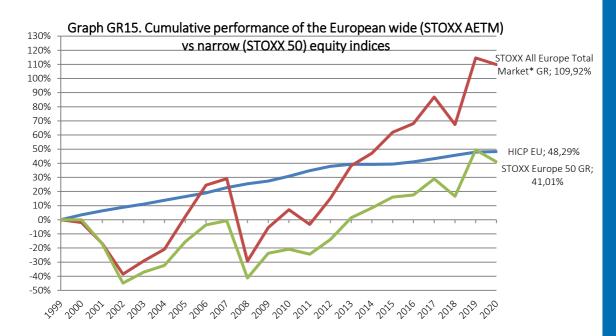
 $^{^{43}}$ As measured by the MSCI Europe Net Returns Index, denominated in $\ensuremath{\varepsilon}.$



nominal returns ranging between 0.03% and 32.44%. In real net terms, due to predominant deflation, 2020 returns improved slightly. On average, the real returns for the equity markets listed in Table GR14 above are 2.34 p.p. lower than the nominal returns over their respective time periods.

When looking at the cumulated results at European level, as well as in the individual countries where we developed this analysis (see French, German and Spanish country cases), broad stock market indices performed much better than the better known and much narrower large cap or "blue chip" indices (Stoxx Europe 50, DAX 30, IBEX 35, CAC 40).

The following graph shows a comparison of the broad STOXX All Europe Total Market index which includes 1,793 European stocks (as of 2 September 2020)⁴⁴ and the much narrower Stoxx Europe 50.



Source: BETTER FINANCE; Eurostat; STOXX

At European level, the difference at the end of our 21-year period is an astonishing 69% in favour of the broader stock market index in nominal terms. And whereas the performance of the narrow index (29% nominal) was heavily outmatched by inflation (39%) over the last 18 years, the broader European stock market recorded a positive real performance with a cumulated gain of 34%.

⁴⁴ https://www.stoxx.com/index-details?symbol=TE1P. There was no data available for year of 2000. The performance of the narrower MSCI Europe TR (Net) index (435 components as of 02 September 2020) for that year was taken as a proxy instead.



Government bond markets

As already mentioned above, it is important to note that a decrease in interest rates translates into an increase in the mark-to-market value of bonds which had a positive impact on outstanding debt assets of pension funds. On the other hand, the capacity to provide good remuneration through new bond issuances is hereby reduced.

The following table indicates the returns of thirteen major European bond markets for the period 2000-2019.

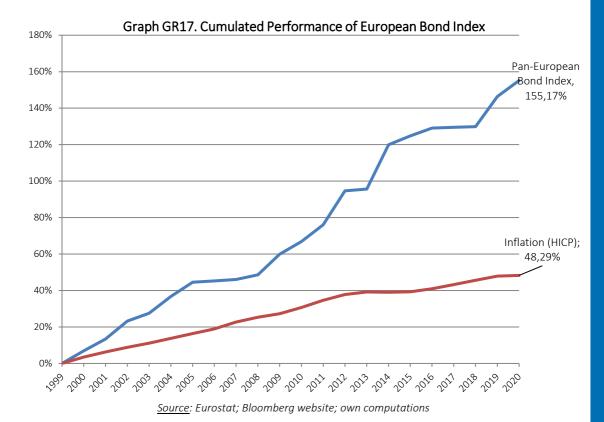
. Historical Retu	rns on Bond Markets,	yearly average
Year	Nominal Return	Real Return
(2008-2019)	5.15%	3.35%
(2009-2019)	6.03%	4.76%
(2008-2019)	4.70%	3.54%
(2008-2019)	4.15%	2.82%
(2008-2019)	5.47%	4.24%
(2008-2019)	4.70%	3.43%
(2008-2019)	5.33%	3.99%
(2008-2019)	-	-
(2008-2019)	4.47%	2.92%
(2008-2019)	-	-
(2008-2019)	-	-
(2008-2019)	2.98%	1.54%
(2008-2019)	4.52%	2.23%
(2008-2019)	4.65%	3.31%
	Year (2008-2019) (2009-2019) (2008-2019) (2008-2019) (2008-2019) (2008-2019) (2008-2019) (2008-2019) (2008-2019) (2008-2019) (2008-2019) (2008-2019) (2008-2019) (2008-2019)	(2008-2019) 5.15% (2009-2019) 6.03% (2008-2019) 4.70% (2008-2019) 4.15% (2008-2019) 5.47% (2008-2019) 4.70% (2008-2019) 5.33% (2008-2019) - (2008-2019) 4.47% (2008-2019) - (2008-2019) - (2008-2019) - (2008-2019) 4.52%

<u>Sources</u>: Morningstar Direct, Eurostat HICP annual average

The European government bond markets all showed steady nominal average returns over the past 10 years, ranging between 6.03% (Croatia) and 2.98% (Sweden). Real average returns ranged even closer together, with the highest in Croatia at 4.76% and Sweden and UK at the lower margin.

The following graph shows the long-term cumulated returns of European bonds as a whole - that is both government and corporate bonds - as measured by the Barclays Pan-European TR index:





Over the last 20 years, European bonds as a whole enjoyed a very positive nominal return which was significantly higher than the return of European equities. It is difficult to foresee a continuation of this past trend given the negative interest rates reached today. However, in 2019 this index grew from 129.86% to 146% in nominal terms. Overall, the real cumulative growth of the broad bond index was of 166.2%.



What are "equities"?

Equities, also referred to as *shares* or *stocks*, represent a certificate of ownership over a certain part of a company or undertaking.

Equity gives the *shareholder* the right to benefit of profits (through dividends) and the obligation to support loses, proportionally to his "ownership share" over the company. At the same time, it allows the *shareholder* to take part in the decision-making process of the company.

The value of a share is primarily determined by its growth potential, coupled with the amount and frequency of *dividend* payments: see here the BETTER FINANCE video about *Investing in Shares*. ⁴⁵

If the company is going well, the share price goes up.

What are "bonds"?

Bonds, commonly referred to as *debt* or *fixed income* securities, represent a very liquid, easily fungible, and transferable **loan**.

The borrower issues the *bond*, which has a *principal* amount (sum to be repaid), a maturity (repayment date) and *coupon* (interest rate).

Bonds are used because they facilitate a very fast financing channel for borrowers (instead of making a loan contract with each lender) and a less risky source of investment return for lenders.

The price of a bond is primarily determined by the *credit rating* of the issuer, the *principal amount* and the *maturity*.

If the issuer is doing good, then the **bond price goes**

Graph GR15 shows that this period has indeed been particularly favourable to bonds as an asset class as illustrated by the considerable outperformance of European inflation over time.

Portfolio Manager / Advisor Competence

The initial BETTER FINANCE study highlighted that, in almost all categories of investment funds, a majority of funds under-performed their benchmarks. Investment funds play an important role in today's asset allocation of pension vehicles, thus it is interesting to compare investment fund performances to benchmarks.

The Standard & Poor's annual "SPIVA" report measures the proportion of active funds that have beaten their benchmark. The results from the latest SPIVA Europe Scorecard for year-end 2016 are shown in the following table:

⁴⁵ Link also here: https://www.youtube.com/watch?v=bhYW-YnbEmc.



Table GR18.	Percentage of European Ed	quity Funds	Beating their B	Benchmark	ks
Fund Category	Comparison Index	1-year (2020)	3-year (2018- 2020)	5-year (2016- 2020)	10-year (2011- 2020)
	Funds denomina	ited in Euro (€))		
Europe Equity	S&P Europe 350	63	30	25	14
Eurozone Equity	S&P Eurozone BMI	42	21	13	8
France Equity	S&P France BMI	66	9	14	8
Germany Equity	S&P Germany BMI	54	35	26	20
Italy Equity	S&P Italy BMI	45	12	18	20
Spain Equity	S&P Spain BMI	38	22	26	17
Netherlands Equity	S&P Netherlands BMI	17	0	0	0
	Funds denominated	in local curren	ncies		
U.K. Equity	S&P United Kingdom BMI	80	66	44	35
Denmark Equity	S&P Denmark BMI	32	11	47	15
Poland Equity	S&P Poland BMI	94	68	39	37
Sweden Equity	S&P Sweden BMI	52	35	31	19
Source: BETTER FINAN	ICE own computation based	on S&P S	SPIVA Scorecard	Year-End	2020
(https://www.spglobal.co	m/spdji/en/documents/spiva/spiv	<u>va-europe-year</u>	<u>r-end-2020.pdf</u>); (Outperformo	ance is

The latest findings for 2020 once again reveal that the large majority of funds do not outperform their respective benchmarks over the past 10 years. For funds investing in European equities, only 14% were able to outperform their benchmark, the S&P Europe 350. The worst results on a country basis were recorded for funds investing in the Netherlands equity where already since 2016 funds haven't overperformed the Dutch broad market index (S&P Netherlands BMI), as well Eurozone and France where only 9% and 10% of the equity funds delivered a cumulative profit over the past 10 years above that of their benchmark.

based on equal-weighted fund counts. Index performance based on total return.

For retirement savings products, consistent positive long-term returns are of particular importance. However definitive conclusions cannot be drawn from these calculations because they relate to a period that is too short, including no more than two cyclical periods: equity markets fell sharply in 2008 and 2009, then they recovered progressively until the end of 2019, with short sub-periods of decline in most countries, as was the case again in 2020. Prior research found that investment funds tend to outperform their benchmarks in a bearish market while they underperform in a bullish market.⁴⁶

For a longer time-horizon and especially in the case of retirement savings, a study⁴⁷ provides relevant results for UK personal pension funds operated by 35 providers over a 30-year period (1980-2009). Big personal pension fund providers performed better than their prospectus benchmarks, but underperformed treasury bills over the period of a fund's lifespan. Similarly, specialisation of portfolio managers in the investment universe is shown to deliver superior average

⁴⁶ IODS (2014): Study on the Performance and Efficiency of the EU Asset Management Industry, a study for the European Commission (Internal Market and Services DG) and the Financial Services User Group (FSUG). August 2014

⁴⁷ Anastasia Petraki and Anna Zalewska (April 2014), "With whom and in what is it better to save? Personal pensions in the UK", working paper of the Centre for Market and Public Organisation, University of Bristol.



annual returns but does not show superior long-term performances. More generally, they found that short-term performances based on arithmetic annual averages are not relevant indicators of the long-term performance calculated as geometric compounded returns similar to the methodology used in the present study. The authors also showed that younger funds perform better than older ones, which are under lower competitive pressure given the cost of leaving a fund to join a better performing one.

A research report published by BETTER FINANCE in 2019 analysed the drivers of over- or underperformance of the comparison or benchmark index of EU Equity Retail Investment funds domiciled in France, Belgium and Luxemburg. While only 2 funds out of 2,086 managed to consistently deliver overperformance over 10 years between 2008-2017, the rest that managed to beat their respective markets seem to have done so by coincidence or luck. ⁴⁸

In attempting to give an explanation for the latter, the analysis deployed showed that fees are the most negative factor for fund (over)performance or – in other words – "the more you pay, the less you get". ⁴⁹ More information on fees and charges is given in the following section.

IV. INVESTMENT CHARGES

Fees and commissions substantially reduce the performances of pension products, especially for personal "packaged" pension products, and for unit-linked life-insurance. Charges are often complex, opaque, and far from being harmonised between different pension providers and products. Some countries have started to impose overall caps on fees for some pension products (UK, Romania, Latvia).

Findings of the initial study by BETTER FINANCE on the opacity and weight of charges did not change dramatically over the successive research reports. Generally speaking, charges are heavier on personal pension products than on occupational pension funds, as employers are in better position to negotiate with competing providers than individuals are.

To tackle this complexity, some pension providers - for example, some auto-enrolment schemes in the United Kingdom – set up fixed costs per member, but this penalises low paid workers.

Following the OFT study, the Department for Work and Pensions issued a regulation which took effect on 6 April 2015⁵⁰. The default schemes used by employers to meet their automatic enrolment duties are subject to a 0.75% cap on AMCs. The cap applies to most charges, excluding transaction costs. Moreover, an audit was conducted on schemes being "at risk of being poor value for money". It found that about one third of surveyed schemes had AMCs superior to 1% and that a significant

⁴⁸ BETTER FINANCE, Study on the Correlation between Cost and Performance of EU Equity Retail Funds (June 2019) https://betterfinance.eu/wp-content/uploads/BETTER1.pdf.

⁴⁹ Press Release, "New research by BETTER FINANCE on the Correlation between Costs and Performance of EU Retail Equity Funds without a doubt establishes a negative correlation between returns and fees" https://betterfinance.eu/publication/the-more-you-pay-the-less-you-are-likely-to-get/.

⁵⁰ https://www.legislation.gov.uk/ukpga/2015/8/contents/enacted



number of savers would have to pay exit fees superior to 10% in case they wanted to switch to a better performing fund. Moreover, starting from October 2017, existing early exit charges in occupational pension schemes cannot exceed 1% of the member's benefits and no new early exit charges can be imposed on members who joined that scheme after 10 October 2017.

V. Taxation

Finally, taxes also reduce the performance of investments. The general model applied to pension products is deferred taxation, with contributions being deducted from taxable income and pension pay-outs being taxed then. The accumulated capital can be withdrawn at least partially at retirement as a lump-sum, which is often not taxable. Our calculations of net returns are based on the most favourable case, i.e., assuming that the saver withdraws the maximum lump-sum possible.

One of the key elements of a pension system, as designed by the World Bank's conceptual framework of 1994,⁵¹ is to incentivise savings and private investments by giving fiscal advantages, either as deferred taxation, exemptions, or tax reductions.

Pension taxation concerns three stages: contributions, investment returns and payments (benefit drawdowns).

The general model applied to pension products is usually deferred taxation: contributions are deducted from the taxable income and pensions (pay-outs) are taxed within the framework of income tax or, usually, at a more favourable rate. Some countries are currently in the middle of a transitional phase comprising proportionate deferred taxation which will lead to entire deferred taxation in the future.

The so-called EET regime, "a form of taxation of pension plans, whereby contributions are exempt, investment income and capital gains of the pension fund are also exempt, and benefits are taxed from personal income taxation"⁵², is predominant in the countries covered by this research report. There are only a few exceptions, like in Poland, where the reverse rule is applied: contributions are paid from the taxable income while pensions are tax-free (the only exception from the TEE regime are IKZEs – individual pension savings accounts). Pensions in Denmark are taxed at all three stages with contributions to occupational pensions being partially deductible as the only exception. Furthermore, in Bulgaria and for the funded pensions in Slovakia, one can even observe EEE regimes with no pension taxation at all within defined tax exemption limits. In other countries, such as France or Poland, specific conditions apply in order to be tax-exempt or not.

⁵¹ World Bank, 'Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth' (1994) 10, http://documents.worldbank.org/curated/en/973571468174557899/pdf/multi-page.pdf.

⁵² OECD definition: https://stats.oecd.org/glossary/detail.asp?ID=5225



Usually, the accumulated capital can be withdrawn by the saver as a lump sum at retirement age, at least partially. Our calculations of returns net of taxation (where available) are based on the most favourable taxation case and assume that the saver withdraws the maximum lump sum possible.

Savings products used as retirement provision, but which are not strictly pension products, might benefit from a favourable tax treatment. This is the case of life insurance in France but successive increases of the rate of "social contributions" on the nominal income tend to diminish the returns of the investment.

An overview of the main taxation rules applied on a country basis can be found in the following table:

Table GR19. Overview of Main Taxation Rules Applied in the Country Reports

Austria

- **EET regime** generally, only payments are taxed;
- o direct commitments, occupational pension funds and group insurance have tax-exempt contributions, tax-exempt capital accumulation, and (income) taxed benefits; o life insurance contributions are subject to insurance tax (4%), investment returns are exempt, and payments are taxed ("TET" regime);
- o premium subsidised products carry a premium based on the contribution, the capital accumulation phase is tax-exempt, and benefits are also tax free if they are converted into an annuity ("TEE" regime).

Belgium

- **EET regime** only withdrawals/payments are taxed;
- o Contributions are tax deductible up to prescribed limits;
- o Employees pay generally 2% solidarity tax and 3.55% INAMI tax on benefits;
- o Pillar II: Taxation in pay-out phase depending on origin of contribution, local taxes to be added;
- o Pillar III: Taxation in pay-out phase at the age of 60, local taxes to be added.

Bulgaria

• EEE regime;

o Annual contributions of up to 10% of annual taxable income is tax free;

Croatia

• EET regime

Contributions and investment income are tax-exempt, whereas benefits are taxed. The tax allowance for pensioners is 1.7 times higher than for employees, meaning that pensions are only modestly taxed.

Denmark

- TTT regime (combination of ETT and TTE);
- o Annuities, periodic instalments, and lump-sum pensions under the form of *kapitalpension* are income tax deferred and follow an ETT regime;
- o Lump-sum pensions under the form of alderopsparing are taxed TTE;

Estonia

• EET regime for taxation:

- o Contributions paid towards the pension schemes are tax-exempt.
- o Returns achieved by respective pension funds are tax-exempt.
- o Benefits paid out during the retirement are subject to the income tax taxation.



France

• ETT regime;

o PERP, Prefon, Corem, CRH contributions are income tax deductible; o Contributions to some DC pension plans (PERCO and PERP) are income tax deductible but no deductibility from social levies. No tax deductibility for life insurance contracts;

o taxation of employers' contributions to corporate savings plans (PEE and PERCO) and defined contribution plans ("Article 83") increased from 8% to 20%.

o the minimum tax rate on life insurance income is now 23%

o pay-outs are taxed in the retirement phase (sometimes with tax reductions).

Germany

• EET regime, taxation divides retirement savings into three groups:

o Statutory pension insurance and the Rürup pension: deferred taxation; contributions up to a deduction cap are exempted from taxation and generally subject to tax in its entirety during the pay-out phase.

o Standard pension insurance or life insurance products: contributions to the products come from taxed income; benefits are taxed at the personal income tax rate on the corresponding earnings in the retirement phase

o Occupational pensions and the Riester pension: deferred taxation; contributions up to a deduction cap are exempted from taxation and generally subject to tax in its entirety during the pay-out phase.

Italy

• ETT regime, contributions are tax deductible up to prescribed limits; o Accruals are taxed at 20% (12.5% on income derived from public bonds) in the capital accumulation phase;

o Taxation in the pay-out phase varies from 9-15%.

• EET regime;

Latvia

o Pillar II – Contributions are personal income tax deductible item and therefore the contributions are not subject to additional personal taxation; Income or profits of the fund are not subject to Latvian corporate income tax at the fund level; a general principle for all investment and savings-based schemes to levy the income taxation on the final beneficiary.

o Pillar III – Voluntary private pensions are generally taxed as Pillar II, however there are deduction limits in the contribution phase: payments (contributions) made to funds shall be deducted from the sum amount of annual taxable income, provided that such payments do not exceed 10 % of the person's annual taxable income.

Lithuania

• EEE regime;

o Employee contributions are tax-deductible even if they are higher than required; for pillar III, there is a tax-refund policy during the contribution phase, which means that the contributions of up to 25% of gross earnings, the income tax (15%) is returned;

Poland

• TEE regime for Employees Pension Programs (PPE) and Individual Retirement Accounts (IKE); EET for Individual Retirement Savings Accounts (IKZE); o benefits are taxed with a reduced flat-rate income tax (10%)



EET regime applies for both mandatory and voluntary pensions;

Romania

o for funded pensions (Pillar II), pension benefits paid out during retirement will be subject to a personal income tax (10% tax rate) above a certain level (€460 in 2018); the social security contributions have been removed as of 2018 and are supported completely from the consolidated state budget.

o for voluntary private pensions (Pillar III), contributions are tax deductible up to a deduction limit, investment income is tax exempted, and benefits are subject to the personal income tax.

Slovakia

- Funded pensions are usually not taxed (EEE regime);
- Supplementary pensions follow the EET regime with several exceptions and specifications.

Spain

- EET regime, contributions are tax deductible up to prescribed limits;
- No taxation in the capital accumulation phase;
- Pay-outs are taxed differently depending on whether they take the form of an annuity or the form of a lump sum payment.

Sweden

- EET regime for public pensions; ETT regime for private pensions;
- o Employers can partially deduct contributions to the second pillar; returns are subject to an annual standard rate tax based on the value of the account and the government-borrowing rate
- o Investment return is subject to tax rate on standard earnings at 15%; o in Pillar III, until 2016 there was a tax deduction of SEK 1,800 per year available; returns are subject to an annual standard rate tax based on the value of the account and the government-borrowing rate

Netherlands

- EET regime;
- Contributions paid into pension funds are tax deductible;
- Taxation is applied in the pay-out phase at the personal income tax rate.

UK

- EET regime;
- Allowances and tax relief on contributions with test against lifetime allowance
- Pay-outs are taxed as income, there are three marginal rates in the UK at the moment.

Source: BETTER FINANCE own composition

VI. RETURNS OVERVIEW

The BETTER FINANCE report now reaches 21 years (or maximum available) of performance disclosure for some retirement provision products. Unfortunately, in the long run, real returns were on average quite low and below those of capital markets (equities and bonds). In the context of negative interest rates and decreasing yields on capital markets, the pensions outlook looks grim.

One has to keep in mind that the diversity of the European pension landscape and the lack of available data complicate the drawing of straightforward conclusions. Although the aim of



comparability would be to present all results in a harmonised manner (either Pillar II vs Pillar III or on product categories - investment funds vs insurance products), complete data for all is not reported, neither the maximum periods available, nor are the concepts (Pillars, occupational vs supplementary plans) so common in all EU Member States. Therefore, for ease of reference, the names of the pension vehicles have been used in Graphs 18 (A, B and C) and Table 19 as presented in each individual country case.

Out of the 15 pension vehicles on which we report performances over at least 18 years (Graph 18(A)):

- only one so far remains on the negative side (-0.66%, French unit-linked life insurances);
- the majority (8) reported less than 1.5% real net return per year, equalling less than 35% pre-tax profits over the past 20 years.

Considering that an EU capital markets-representative benchmark (50% European Equities – 50% European bonds) recorded 72% real profits before taxes (2.69% p.a.), the 2020 data update shows few product categories overperforming this broad market benchmark.

On shorter reporting time frames (Graphs 18(B) and (C)) performances were much higher, but this may be due to the fact that some products did not pass through the same crises as the long-term ones (Graph 18(A)) did.

In general, we could observe significant performance differences in each country case, either between pillars or between types of pension vehicles:

- in Romania, Pillar II mandatory pension funds massively overperformed Pillar III pensions;
- in Austria, pension insurances overperformed pension funds by almost 17 percentage points;
- in Italy, both PIP-products have turned positive: PIP with profits had positive returns over the past 13 years (1.36%) unit-linked PIP recorded an average gain of 2.23%; and
- in France, where capital guaranteed insurance products gained 1.6% p.a. and unit-linked insurance lost -0.7% p.a.

These poor or even negative real returns have led public authorities in some Member States to take measures in order to ensure transparency and cap the fees charged by certain pension providers (in countries such as the UK, Romania and Latvia). The issue is crucial, especially in countries like the United Kingdom where the standard of living of retirees is heavily dependent on pre-funded pension schemes. The following tables detail the long-term real returns of the main long-term and pension saving product categories in the 17 European countries analysed. The categorisation in Graphs GR18(A), (B), (C) AND (D) is by the starting reporting year available in this report.

In Italy, an ambitious reform was implemented (as of 2011) by Minister Elsa Fornero under the Monti government in order to secure the public PAYG system, despite very unfavourable demographic trends. As such, the poor returns of the personal pension plans will have a limited



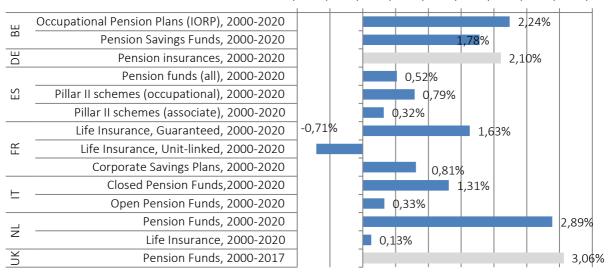
impact on the replacement rates of retirees' income, the downside being the heavier reliance on the public pension scheme.

By contrast, pensions in the UK are more heavily dependent on pre-funded schemes. As such, the total value of pension assets as % of the 2018 GDP reached 105%, which is modest compared to the Netherlands or Denmark, but four times higher than the average (pension fund assets 25% of GDP) in the 17 countries in scope of this Report. The Government has implemented "autoenrolment" to extend the benefits of pension funds to most employees. There, the excessive charges borne by pension fund members have led public authorities to take measures in order to improve transparency and to limit the fees charged by pension providers.

<u>Note</u>: In Bulgaria, data on professional pension funds (occupational and voluntary) was no longer available for the 2018 update. The data reported in these graphs and tables is time-weighted returns.

Graph GR19(A). ANNUALISED REAL RETURNS OF PENSION SAVINGS - AFTER CHARGES & INFLATION - BEFORE TAX - FROM 2000/01

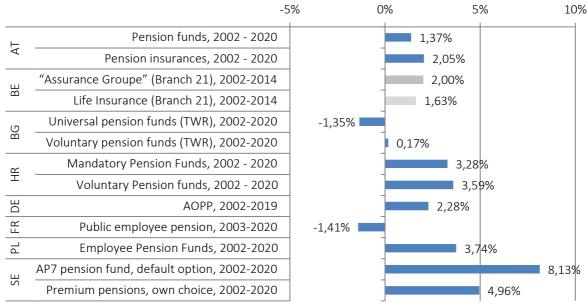
-1,0% -0,5% 0,0% 0,5% 1,0% 1,5% 2,0% 2,5% 3,0% 3,5%



Source: BETTER FINANCE Research (Table 20); * Net of taxes, charges and inflation

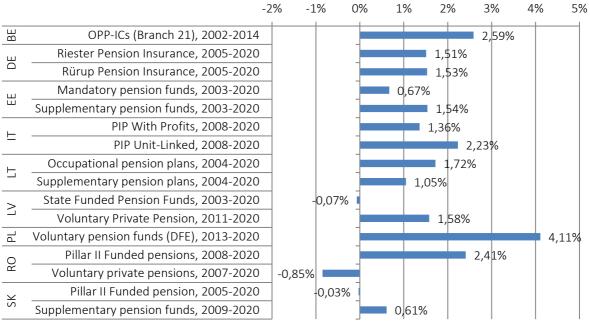


Graph GR19(B). ANNUALISED REAL RETURNS OF PENSION SAVINGS - AFTER CHARGES & INFLATION - BEFORE TAX - FROM 2002



Source: BETTER FINANCE Research (Table 20); * Gross of fees

Graph GR19(C). ANNUALISED REAL RETURNS OF PENSION SAVINGS - AFTER CHARGES & INFLATION - BEFORE TAX - LATER STARTING DATES



Source: BETTER FINANCE Research, Table 20

X

SE



8,34%

Graph GR19(D). ANNUALISED REAL RETURNS OF PENSION SAVINGS - SPECIFIC

SAF-LO, 2016-2020



PA-16, 2016-2020 8,10%

AKAP-KL, 2016-2020 8,61%

Source: Graph 20

The following table groups the pension vehicles available and reported on by country, and presents the average returns on the entire available reporting period.

Table GR20. Yearly Real Returns of Private Pension Products			
Austria	Pension funds, 2002- 2020: +1.37%		
Austria	Life-insurances, 2002-2020: +2.05%		
	Pension Funds (IORP [1]), 2000-2020: +2.24%		
Polgium	"Assurance Groupe" (Branch 21), 2002-2014: + 2.00%		
Belgium	Pension Savings Funds, 2000-2020: +1.78%		
	Life Insurance, Guaranteed, 2002-2014: +1.63%		
	OPP-ICs (Branch 21), 2002-2014: + 2.59%		
	Universal Pension Funds (TWR), 2002-2020: -1.35%		
Bulgaria			
	Voluntary Pension Funds (TWR), 2004-2020: 0.17%		
Croatia	Mandatory Pension Funds, 2002–2020: +3.28%		
Croatia	Voluntary Pension funds, 2002-2020: +3.59%		
Danmark (after tax)	Pension plans Hybrid DC with guarantee 2016-2019: +4.71%		
Denmark (after tax)	Pension plans DC without guarantee 2016-2019: +4.89%		
Estonia	Mandatory Pension Funds, 2003-2020: 0.67%		
ESTOTIIA	Supplementary Pension Funds, 2003-2020: +1.54%		
	Life Insurance, Capital guaranteed, 2000-2020: 1.6%		
France	Life Insurance, Unit-linked, 2000-2020: -0.71%		
	Corporate savings plans, 2000-2020: +0.81%		



	A.O.P.P.[1], 2002-2019: +2.28%
Germany	Riester Pension Insurance, 2005-2020: +1.51%
Germany	Rürup Pension Insurance, 2005-2020: +1.53%
	Pension Insurances, 2000-2020: +2.10%
	Closed Pension Funds, 2000-2020: +1.31%
Italy	Open Pension Funds, 2000-2020: +0.33%
italy	PIP with Profits, 2008-2020: +1.36%
	PIP Unit-Linked, 2008-2020: +2.23%
Latvia	State Funded Pension Funds, 2003-2020: -0.07%
Latvia	Voluntary Private Pension, 2011-2020: +1.58%
Lithuania	Occupational pensions 2004-2020: +1.72%
LIUIUAIIIA	Supplementary pensions 2004-2020: +1.05%
Poland	Employee Pension Funds, 2002-2020: +3.74%
Polatiu	Voluntary Pension Funds, 2013-2020: +4.11%
Romania	Pillar II Funded Pensions, 2008-2020: +2.41%
NOIHailia	Voluntary Pension Funds, 2007-2020: -0.85%
Slovakia	Pillar II Pension Funds, 2005-2020: -0.03%
SIOVAKIA	Supplementary Pension Funds, 2008-2020: +0.60%
	Pension Funds (all), 2000-2020: +0.52%
Cnain	Individual plans (agg.), 2000-2020: +0.32%
Spain	Pillar II schemes (occupational), 2000-2020: +0.89%
	Pillar II schemes (associate). 2000-2020: +1.07%
	AP7 fund, default option: 2000-2020: +6.95%
	Premium pension, other funds: 2000-2020: +4.18%
Sweden	ITP1, 2016-2020: +8.23%
Sweden	SAF-LO, 2016-2020: +8.34%
	PA-16, 2016-2020: +8.10%
	AKAP-KL, 2016-2020: +8.61%
The Netherlands	Pension Funds, 2000 - 2020: +2.89%
me Netherlands	Life Insurance, 2000 - 2020: +0.13%
UK	Pension Funds, 2000-2017: +3.06%

^{*}After tax

<u>Source</u>: Own Research, Better Finance Research

Occupational pension funds as per the definition and scope of the EU "Institutions for Occupational Retirement Provision Directive" (IORP); [1] A.O.P.P. stands for Autonomous Occupational Pension Funds.

[1] The returns on private pension products in Denmark cannot be calculated on average since the Danish Supervisory Authority started to report the returns for two categories: hybrid defined-contribution (DC) with guarantee and defined-contribution (DC) with no guarantee. Therefore, averages as of 2016 cannot be calculated.



Pension Savings: The Real Return 2021 Edition

Country Case: Latvia

Summary

Funded pension schemes have experienced negative average returns during their existence even the portfolio of pension funds in mandatary pension pillar is conservatively oriented. Pillar II pension funds recorded on average small annual nominal return of 1.4% in year 2020, while Pillar III funds delivered also on average positive nominal return of 1.64%. A positive development could have been seen on the Pillar II market, where the introduction of passively managed funds contributed to further decrease of fees in year 2020. The fees have decreased also in the Pillar III, however, complex fee structure and still higher fees of Pillar III pension funds play a significant role on the expected accumulated benefits.

Kopsavilkums

Fondēto pensiju shēmas savas pastāvēšanas laikā ir piedzīvojušas negatīvu vidējo ienesīgumu, pat ja pensiju fondu portfelis obligāto pensiju pīlārā ir konservatīvi orientēts. II pīlāra pensiju fondi 2020. gadā uzrādīja vidēji nelielu gada nominālo ienesīgumu 1,4 % apmērā, savukārt III pīlāra fondi uzrādīja arī vidēji pozitīvu nominālo ienesīgumu 1,64 % apmērā. Pozitīva attīstība bija vērojama II pīlāra tirgū, kur pasīvi pārvaldīto fondu ieviešana veicināja turpmāku komisijas maksu samazināšanos 2020. gadā. Maksa ir samazinājusies arī III pīlārā, tomēr III pīlāra pensiju fondu sarežģītā maksu struktūra un joprojām augstākas maksas būtiski ietekmē gaidāmos uzkrātos ieguvumus.

Introduction

Latvia is currently operating a multi-pillar pension system based on three pension pillars. The reform followed World Bank recommendations on creating a pension system with unfunded PAYG and funded pension pillars. Since 2001, the Latvian multi-pillar pension system includes:

- Pillar I (state compulsory PAYG pension scheme);
- Pillar II (mandatory state funded pension scheme) which is financed by a part of the social insurance contributions diverted from Pillar I;
- Pillar III (voluntary private pension scheme).



The introduction of the multi-pillar pension system has aimed its overall functionality on a different approach to each pension pillar operation, but with the overall objective of ensuring an adequate pension for individuals under the demographic risks of an aging society, as well as the pension system's overall future financial stability.

The reform of the Latvian pensions system started in 1995, when it was decided to implement the three-pillar pension system. Firstly, the shift from the old Soviet-styled PAYG pension system to the notional defined contribution pension scheme (NDC PAYG Pillar I) was carried out. The new law on state pensions was adopted by the Parliament in November 1995 and came into force on 1 January 1996. The state mandatory-funded pension scheme (Pillar II) started operating in July 2001. The private pension funds (Pillar III) have been operating since 1998.

From the point of view of individual savers, the Latvian pension system combines two aspects: personal interest in building wealth (based on a level of contributions and the length of the saving period) and intergenerational solidarity.

The Latvian NDC PAYG-based pension Pillar I has been effectively introduced by a partial reform in January 1996 and represents a mandatory scheme for all economically active persons who make social insurance contributions calculated from a monthly gross salary (income). Paid contributions are used for the payment of old age pensions to the existing generation of pensioners. Pillar I is organized as a NDC scheme, where the notional value of career contributions is recorded on each contributor's personal account. Prior to claiming pension benefits, the pension capital recorded on individual NDC account is recalculated in accordance with the laws and regulations at the time when the individual accesses his/her pension.

Pension Pillar II is in fact a state-organized 1bis pillar, meaning that part of the individually paid social contributions are channeled to Pillar II and recorded on individual pension accounts. Monthly contributions are invested into individually chosen investment plans (pension funds) managed by private pension fund management companies. Pillar II was launched in July 2001 and completed the multi-pillar-based pension reform in Latvia.

Pillar III was launched in July 1998 and is organized as a private voluntary pension scheme. It accumulates individual contributions, as well as employer contributions made on the behalf of individual employees, to the selected voluntary pension fund.

²²⁵ Groduma, M. 2002. Social insurance in Latvia: Seeking balance between financial stability and equity. In: European regional meeting "New and revised approaches to social protection in Europe". Budapest, 13 - 15 November 2002. [Online] Available: http://www.issa.int/html/pdf/budapest02/2groduma.pdf



Table LV 1: Multi-pillar pension system in Latvia					
Pillar I	Pillar II	Pillar III			
State Pensions	State Funded pensions	Voluntary private pensions			
Mandatory	Mandatory	Voluntary			
NDC PAYG	Funded	Funded			
Financed by social insurance contributions	DC	DC			
Benefits paid via State Social Insurance Agency	Financed by social insurance contributions	Privately managed two types of pension plans:			
Publicly managed	Individual pension accounts	1. open (individual),			
	Privately (and publicly) managed pension funds	closed (quasi occupational)			
Coverage: generally all population	Coverage: generally entire working population	Coverage: Cannot be calculated due to missing information about number of participants			

Gross replacement ratio: 32% (1,143 Eur average wage; 367 Eur average old-age pension)

Source: Own elaboration, 2021

Pillar I – State Pension Insurance

State old-age pension (Pillar I) should guarantee the minimum income necessary for subsistence. It is based on an NDC PAYG principle of redistribution, i.e., the social tax paid by today's employees covers the pensions of today's pensioners. However, the amount of the paid contributions for each saver are recorded on individual accounts.

The state old-age pension is paid out of the social insurance contributions. Total level of social insurance contributions is 34.09% of gross salary for employees (employers contributes 23.59% and employees 10.5%; self-employed persons pay 27.52%). Of the total contribution in 2020, 14% funded the Pillar I NDC pension and 6% was redirected to the individual's account under Pillar II. The remaining portion of contributions financed social security elements such as disability pension, sickness and maternity benefits, work injury benefits, parent's benefits, and unemployment benefits.

The **statutory retirement age** in Latvia in 2020 is 63 years and 9 months for both men and women. However, the law stipulates a gradual increase of the retirement age by three months every year until the general retirement age of 65 years is reached in 2025. Early pension is possible in Latvia if two conditions are met: 1) an individual in 2020 reaches the age of at least 61 years and 9 months (gradually rising by three months a year until 2025) and 2) an individual contributed for a period of at least 30 years.



Old-age pension is based on the insured's contributions, annual capital growth adjusted according to changes in the earnings index, and average life expectancy. Old age pension is calculated by considering two parameters:

- K accumulated life-time notional pension capital, which is an accrued amount from paid contributions since the introduction of NDC system (1 January 1996) until the pension granting month. However, during the transition period to a full the NDC system, these two aspects are also taken into account:
 - a. average insurance contribution wage from 1996 until 1999 (inclusive);
 - b. insurance period until 1 January 1996;
- 2. G cohort unisex life-expectancy at the time of retirement.

Annual old-age pension (P) is calculated as follows:

$$P = \frac{K}{G}$$

It can be said that the Latvian NDC PAYG Pillar I has shifted in a direction where the average gross replacement ratio is lower than 35%. The average income replacement ratios for old-age pension in Latvia are shown in the table below.



Table LV 2. Latvian NDC PAYG pillar statistics

Indicator / Year	Average Old- age pensions	Average Gross Monthly Wages and Salaries	Gross Replacement Ratio	Average Net Monthly Wages and Salaries	Net Replacement Ratio
2003	92	274	34%	196	47%
2004	101	300	34%	214	47%
2005	115	350	33%	250	46%
2006	137	430	32%	308	44%
2007	158	566	28%	407	39%
2008	200	682	29%	498	40%
2009	233	655	36%	486	48%
2010	250	633	39%	450	56%
2011	254	660	38%	470	54%
2012	257	685	38%	488	53%
2013	259	716	36%	516	50%
2014	266	765	35%	560	48%
2015	273	818	33%	603	45%
2016	280	859	33%	631	44%
2017	289	926	31%	676	43%
2018	314	1004	31%	742	42%
2019	340	1076	32%	793	43%
2020	367	1143	32%	841	44%

<u>Source</u>: Own calculations based on Central Statistical Bureau of Latvia (http://data.csb.gov.lv), 2021 https://stat.gov.lv/lv/statistikas-temas/darbs/alga/tabulas/dsv030c-stradajoso-menesa-videja-darba-samaksa-pa-darbibas

Average monthly earnings of employees by type of activity (euro) (gross & net) https://stat.gov.lv/lv/statistikas-temas/darbs/alga/tabulas/dsv040-stradajoso-menesa-videja-darba-samaksa-regionos-eiro

Average monthly earnings of employees in regions (euro)

A **Minimum old-age pension** mechanism is effective in Latvia. The minimum amount of the monthly old-age pension cannot be less than the state social security benefits (€80 monthly since January 2020) with an applied coefficient tied to the years of service (insurance period):

- 1. persons with insurance period up to 20 years 1.1;
- 2. persons with insurance period from 21 to 30 years 1.3;
- 3. persons with insurance period from 31 to 40 years 1.5;
- 4. persons with insurance period starting from 41 years 1.7.



The minimum old-age pension is calculated using the basic state social security benefit multiplied by the respective coefficient that is tied to the number of service (working) years (see table below).

Table LV 3: The amount of the minimum old-age pension according to the year of each insurance period in Latvia

Years of service (Insurance period)

Insurance length 15 years

Insurance length 30 years

Insurance length 40 years

Insurance length 50 years

Insurance length 50 years

244.80

<u>Source</u>: Own elaboration based on Ministry of Welfare data, 2021 (<u>www.lm.gov.lv/lv/vecuma-pensija</u>)

Starting from 1 January 2021, the amount of the minimum old-age pension shall be determined by applying a coefficient of 1.1 to the minimum old-age pension calculation base of 136 euros (for persons with disabilities from childhood - 163 euros) and for each subsequent year exceeding the established old-age pension. the required length of insurance (currently at least 15 years), increasing the amount by two percent of the minimum old-age pension calculation base.

The amount of the minimum old-age pension is determined on the day of granting (recalculation) the pension, as well as by reviewing the calculation basis of the minimum old-age pension.

Pillar II - State Funded Pensions

Pillar II of the pension scheme was launched on 1 July 2001. As of that date, a portion of all individuals' social contributions are invested into the financial market and accumulated on their Pillar II personal account. Everyone who is socially insured is entitled to be a participant of the Pillar II scheme as long as the person was not older than 50 years of age on 1 July 2001. Participation in the 2nd tier is compulsory for those who had not reached the age of 30 on 1 July 2001 (born after 1 July 1971).

Gradually all employees will participate in Pillar II. Persons who were between the ages of 30 and 49 (born between 2 July 1951 and 1 July 1971) at the time when the scheme was launched could and still can join the system voluntarily. Administration of Pillar II contributions are made by the State Social Insurance Agency, which collects and redirects 20% old-age pension insurance contributions between the NDC and FDC pillar pension scheme individual accounts. According to the Law on State Funded Pension, the State Social Insurance Agency also performs additional tasks connected to the Pillar II administration.

The Ministry of Welfare, according to the Law on State Funded Pension, performs the supervision of the funded pension scheme and has the right to request and receive an annual account from the State Social Insurance Agency regarding the operation of the funded pension scheme.



Total redistribution of old-age pension contributions between Pillar I and Pillar II of the pension scheme are shown in the table below.

Table LV 4. Redistribution of the old-age pension contributions between pillar I and pillar II

pilla	ar II	
Years	Pillar I (NDC)	Pillar II (FDC)
2001-2006	18%	2%
2007	16%	4%
2008	12%	8%
2009-2012	18%	2%
2013-2014	16%	4%
2015	15%	5%
2016 and ongoing	14%	6%

Source: https://www.manapensija.lv/en/pension-system/qa/, 2021

Source: https://www.vsaa.gov.lv/en/services/for-employees/2-nd-tier-mandatory-state-funded-

pension-scheme/, 2021

Contributions into Pillar II were raised continuously with the adopted reforms. However, during the financial crisis, the contributions into Pillar II were reduced to 2% with gradual growth since 2012. It should be mentioned that the largest part of contributions (8% of salary) had flown into the pension fund in 2008, right at the top and before the crash of financial markets. This has significantly influenced the performance of funds, which is analyzed in the sub-section dedicated to Pension Returns. Investing is performed by a third party: licensed fund managers.

Upon retiring, Pillar II participants will be able to make a choice: either add the accumulated pension capital to Pillar I and receive both pensions together or to entrust the capital accumulated in Pillar II to the insurance company of their choice and buy a single annuity.

Several changes have been made in the management of accumulated savings on personal accounts of Pillar II participants. Until 1 January 2003, there was only one public fund manager for the funds of Pillar II, the State Treasury. They invested the funds exclusively into the Latvian state bonds and into the deposits of the largest and safest Latvian banks. As of 1 January 2003, the private fund managers were involved, but today participants of Pillar II are in the position to choose their fund manager themselves. The private fund managers offer to invest the pension capital and into corporate bonds, shares and foreign securities. Participants of the system are entitled to change their fund manager once a year and, in addition, investment plans within the frame of one fund manager can be changed twice a year. Operation of private fund managers is supervised by the Finance and Capital Market Commission.

In 2019, the Parliament has adopted changes in Pillar II, where since January 2020, a saver could define any person, to which the accumulated capital on personal account can be inherited directly.



Pillar III – Voluntary private pensions

Voluntary private pension scheme, or pension Pillar III, was launched in July 1998, and it gives the opportunity to create additional voluntary savings in addition to the state organized Pillar I and II. Contributions that individuals and/or the employer regularly pay into the pension fund are invested in different securities, depending on the chosen investment strategy.

The Law on Private Pension Funds foresees that Latvian commercial banks, insurance companies and legal persons have the right to establish a private fund. Assets are invested by private pension funds with the aim not only to maintain the value of savings, but to increase it over a long-time period. There are generally two types of voluntary private pension funds in Latvia:

- 1. open pension funds (15 operational in Latvia in 2020)
- 2. closed pension funds (only one operating in Latvia in 2020).

Pension scheme participants can subscribe to a pension scheme by entering directly into a contract with an open pension fund or via their employer. Pension scheme participants can participate in a pension scheme through the intermediation of their employer if the employer has entered into a collective contract with an open or closed pension fund. A collective contract with a closed pension fund may be entered into only in such cases when the relevant employer is also one of the founders (stockholders) of the same closed pension fund. Acknowledging the fact that employers might enter into collective agreement with employees and establish the pension scheme, voluntary private pension funds might be recognized as a collective pension scheme.

According to the Law on Private Pension Funds, accumulated pension capital in private pension funds can be accessed by individuals when they reach the age of 55. In order to receive the Pillar III accrued pension, an individual must submit an application to the respective pension fund. The supervisory authority for all voluntary private pension funds in Latvia is the Financial and Capital Markets Commission.

Pension Vehicles

Pillar II – State Funded Pensions

Pension funds are the only pension vehicles allowed by the Law of State Funded Pensions for state-funded pension scheme. The law states that a funded pension scheme is a state-organized set of measures for making contributions, administration of funds contributed and payments of pensions which (without increasing the total amount of contributions for old age pensions) - provides an opportunity to acquire additional pension capital by investing part of the pensions' contributions in financial instruments and other assets in accordance with the procedures specified in the Law.

Currently (as of 31 December 2020), 31 state-funded pension schemes have been operational on the Pillar II market. Three new equity-based funds emerged during 2019, most of them designed as



target-date funds for savers at certain age. There is no specific legal recognition of types of pension funds based on their investment strategy, nor any legal requirement to provide a specific investment strategy for pension funds. It is up to a pension fund manager to provide an in-demand type of pension fund in order to succeed on the market. However, every fund manager is required to develop a systematic set of provisions, according to which funds are managed. They are presented in a prospectus of the relevant pension fund and in a key investor information document (KIID, specific for UCITS funds, but with particular features) for participants of the scheme. The prospectus of a pension fund and the key information document for participants are an integral part of the contract entered into between the Agency and the manager of pension funds. Pension fund prospectus must clearly define the risk-reward profile and indicate proposed investment strategy of the respective expected portfolio structure.

Although there is no legal recognition of types of pension funds, they can be divided into three types based on their risk/return profiles:

- 1. Conservative funds, with no equity exposure and a 100% share of bonds and money market instruments;
- 2. Balanced funds with bonds and money market instrument share of at least 50%; in addition, a maximum of 15% of the funds' balances can be invested in equities;
- 3. Active funds with an equity share (resp. investments in capital securities, alternative investment funds or such investment funds that may make investments in capital securities or other financial instruments of equivalent risk) of up to 75% (since 2018) and no limits on investments in bonds and money market instruments.

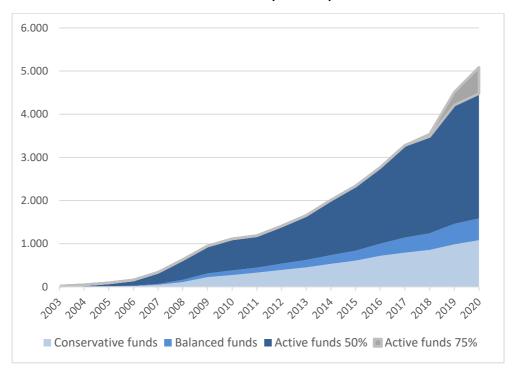
The legislation sets relatively strict quantitative investment limits for pension funds, trying to supplement the prudent principle.

Overall asset allocation in Latvia is fairly conservative despite the possibility of choosing a plan according to risk preference. The chart below presents the amount of Assets under Management for types of pension funds according to their investment strategy.

Contrary to many other CEE countries running mandatory pension systems, there is no requirement for pension funds to guarantee a certain minimum return. On the contrary, doing so is explicitly forbidden.



Graph LV I. Assets under Management in State Funded Pension Scheme pension vehicles (in mln. €)

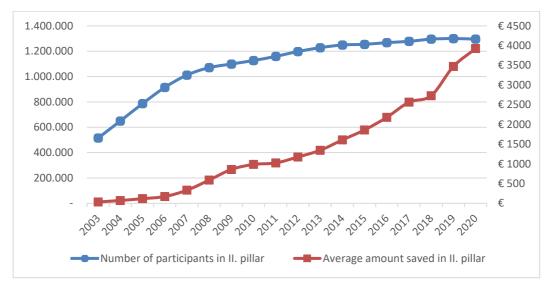


Source: Own calculations (http://www.manapensija.lv/en/2nd-pensionpillar/statistics/data), 2021

As the State Funded Pension scheme is mandatory for all economically active individuals in Latvia, the number of savers (as well as the average amount of accumulated assets on individual accounts) is rising. The chart below indicates that the Pillar II market is starting to be saturated in terms of the number of participants.



Graph LV II. Number of participants and average size of individual accounts in Latvian II pillar



Source: Own calculations (http://www.manapensija.lv/en/2nd-pension-pillar/statistics/data), 2021

The number of Pillar II participants has almost encompassed the entire working population. Further growth of Pillar II savings will therefore be driven by the amount from contributions and pension funds' performance.

There are 31 pension funds operating by 9 providers (table below).

Table LV 5. List of State Funded	Pension Funds	
Pension Fund Name	Investment style of the pension plan	Inception day
CBL Aktīvais ieguldījumu plāns	Active 50	7.1.2003
CBL Universālais ieguldījumu plāns	Conservative	7.1.2003
Luminor Sabalansētais ieguldījumu plāns	Balance	21.2.2005
leguldījumu plāns "INVL Ekstra 47+"	Active 50	8.8.2006
leguldījumu plāns "INVL Komforts 53+"	Balance	8.8.2006
Ieguldījumu plāns "INVL Konservatīvais 58+"	Conservative	7.1.2003
Luminor aktīvais ieguldījumu plāns	Active 50	2.2.2009
Luminor konservatīvais ieguldījumu plāns	Conservative	2.2.2009
Ieguldījumu plāns "DAUGAVA"	Conservative	7.1.2003
Ieguldījumu plāns "GAUJA"	Active 50	14.10.2003
Ieguldījumu plāns "VENTA"	Balance	14.10.2003
SEB aktīvais plāns	Active 50	7.1.2003
SEB Eiropas plāns	Active 50	7.1.2003
SEB konservatīvais plāns	Conservative	26.5.2003
SEB Latvijas plāns	Conservative	7.1.2003



SEB sabalansētais plāns	Balance	7.1.2003
Swedbank pensiju ieguldījumu plāns "Dinamika"	Active 50	7.1.2003
Swedbank pensiju ieguldījumu plāns "Stabilitāte"	Conservative	7.1.2003
leguldījumu plāns "INDEXO Izaugsme 47-57"	Active 50	21.6.2017
ABLV ACTIVE INVESTMENT PLAN	Active 50	2.8.2017
CBL dzīves cikla plāns Millennials	Active 75	24.4.2018
Ieguldījumu plāns "INDEXO Jauda 16-50"	Active 75	18.1.2018
Ieguldījumu plāns "INVL MAKSIMĀLAIS 16+"	Active 75	5.11.2018
Luminor Progresīvais ieguldījumu plāns	Active 75	6.4.2018
SEB dinamiskais plāns	Active 75	5.3.2018
SEB indeksu plāns	Active 75	5.3.2018
Swedbank ieguldījumu plāns 1990+	Active 75	9.2.2018
Ieguldījumu plāns "INDEXO Konservatīvais 55+"	Conservative	4.4.2018
Swedbank ieguldījumu plāns 1970+	Active 75	8.1.2019
Swedbank ieguldījumu plāns 1980+	Active 75	8.1.2019
CBL Ilgtspējīgu iespēju ieguldījumu plāns	Active 75	13.5.2019

Source: http://www.manapensija.lv/en/2nd-pension-pillar/statistics/, 2021

The portfolio structure of Pillar II pension funds (figure below) shows that debt and other fixed income securities as well as investment funds (UCITS funds) remain the dominant investments. There is only limited direct investment into equities.

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% 2013 2014 ■ Bank and time deposits Derivatives ■ Investment in risk capital ■ Investment shares in investment funds ■ Shares and other variable-yield securities ■ Debt securities and other fixed-income securities

Graph LV III. Pillar II pension funds' portfolio structure

<u>Source:</u> Own elaboration based on Financial and Capital Market Commission data, 2021 (available at: https://www.fktk.lv/en/statistics/pension-funds/quarterly-reports/).



Pillar III – Voluntary private pensions

There are two types of private pension funds in the Latvian voluntary private pension pillar:

- 1. closed, for fund founders' (corporate) staff;
- 2. open, of which any individual may become a participant, either directly or through an employer.

This distinction between private pension funds is rather significant, as closed private pension funds (only one operating in Latvia in 2020) could be recognized as a typical occupational pension fund. However, open private pension funds are more personal ones.

The law on Private Pension Funds provides a wide range of possibilities to organize and manage private pension funds. The law prescribes the accumulation of pension benefits (both in the specified contribution scheme and in the specified pay-out scheme), the types of private pension funds, the basis for activities thereof, the types of pension schemes, the rights and duties of pension scheme participants, the management of funds, the competence of holders of funds, and state supervision of such activities.

Pension vehicles (pension funds) can be created only by limited types of entities in Latvia, namely:

- 1. employers entering into a collective agreement with a pension fund, technically become founders of a closed pension fund;
- 2. for an open pension fund, two types of institutions can establish a fund:
 - 1) bank (licensed credit institution);
 - 2) life insurance company.

These founders usually hire a management company, who creates a different pension plan managed under one pension fund and manages the investment activities. Pension scheme assets can be managed only by the following commercial companies:

- a credit institution, which is entitled to provide investment services and non-core investment services in Latvia:
- an insurance company, which is entitled to engage in life insurance in Latvia;
- an investment brokerage company, which is entitled to provide investment services in Latvia;
- an investment management company, which is entitled to provide management services in Latvia

The level of transparency in providing publicly available data for private pension funds before the year 2011 is rather low. Therefore, the analysis of the market and main pension vehicles has been performed with publicly available data starting from 31 December 2011. Currently (as of 31 December 2020), 15 open private pension funds and one closed private pension fund exist on the market.

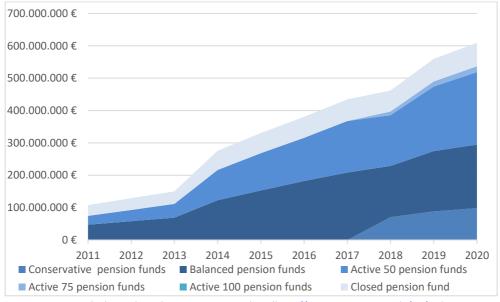


Table LV 6. List of Pilla	r III Supplementary pension funds	
Pension Fund Name	Investment style of the pension plan	Inception day
Swedbank pensiju plāns Stabilitāte+25	Conservative opened pension funds	14.7.2003
INVL KOMFORTS 53+	Conservative opened pension funds	23.10.1998
CBL Sabalansētais	Balanced opened pension funds	30.9.1999
Luminor sabalansētais pensiju plāns	Balanced opened pension funds	18.10.2011
"SEB - Sabalansētais" pensiju plāns	Balanced opened pension funds	31.7.2000
INVL Klasika	Balanced opened pension funds	7.3.2008
INVL EKSTRA 47+	Balanced opened pension funds	8.10.2015
CBL Aktīvais	Active 50 opened pension funds	21.3.2000
"SEB Aktīvais" pensiju plāns	Active 50 opened pension funds	15.9.2004
Swedbank pensiju plāns Dinamika+60	Active 50 opened pension funds	1.8.2003
Swedbank pensiju plāns Dinamika+100	Active 50 opened pension funds	27.12.2006
CBL Aktīvais USD	Active 50 opened pension funds	1.4.2006
Swedbank pensiju plāns Dinamika+(USD)	Active 50 opened pension funds	14.7.2003
Luminor progresīvais pensiju plāns	Active 75 opened pension funds	18.10.2011
INVL MAKSIMĀLAIS 16+	Active 100 opened pension funds	8.10.2015
"Pirmais Pensiju Plāns"	Closed pension fund	1.12.1999

Source: Own elaboration based on www.manapensija.lv, 2021

The structure of the pension vehicles according to the type of the fund and investment strategy offered is presented in the figure below.

Graph LV IV. Type of pillar III pension funds based on assets under management



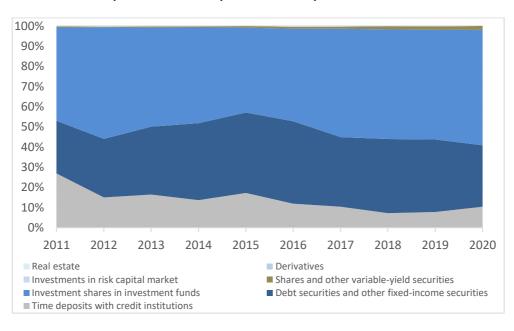
<u>Source</u>: Own calculation based on Manapensija data (http://www.manapensija.lv/en/3rd-pension-pillar/history-and-statistics/), 2021



It should be noted that balanced pension funds (5 funds) accounted for about 33% of market share based on AuM in 2020. Active funds – for which the investment strategy allows more equity investments - are gaining market share (from 25% in 2011 to 39.75% in 2020). Conservative funds due to the reclassification of one fund from balanced to conservative have market share of around 16% in 2020.

On the other hand, the only closed pension fund, (which has only 5% of market share based on the number of participants) accounts for almost 12% of market share based on assets under management (data as of 2020), meaning that the closed pension fund has the highest level of accumulated assets per participant. However, considering the decreasing trend in market share during the last years, the number of participants is not increasing, and the closed pension fund serves a relatively matured market.

The portfolio structure of Pillar III pension funds is presented in the figure below. Generally, Pillar III pension funds invest predominantly into debt securities, bank deposits and UCITS funds. Direct investment into equities, real estate or other long-term riskier investment constitute for less than 1% of total portfolio.



Graph LV VI. Pillar III pension funds' portfolio structure

<u>Source:</u> Own elaboration based on Financial and Capital Market Commission data, 2021 (available at: https://www.fktk.lv/en/statistics/pension-funds/quarterly-reports/)



Charges

Pillar II – State Funded Pensions

Latvia has adopted the cap on fees within Pillar II, which forces that the maximum amount of payment for the management of investment plan (including the fixed and variable parts of payment, calculating for the last 12-month period) to not exceed:

- 1) 1.50% of the average value of investment plan assets to the investment plans, where the investment plan prospectuses do not provide for any investments in the shares of commercial companies, other capital securities and other equivalent securities;
- 2) 2.00% of the average value of investment plan assets of all other investment plans.

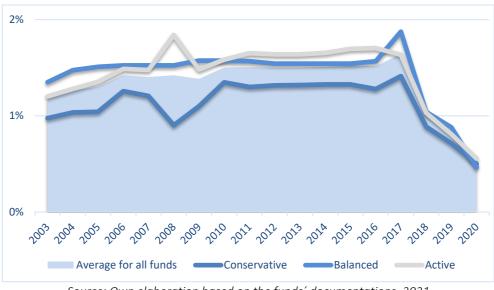
Fees that can be charged to pension funds by fund managers are recognized by law as having a fixed and variable part. The law stipulates that payment for the management of an investment plan shall include:

- a) fixed component of payment, which is 1% of the average value of investment plan assets per year and includes payments to the manager of the funds, custodian, as well as payments to third persons, which are performed from the funds of the investment plans (except expenses which have arisen upon performing transactions by selling the assets of the investment plan with repurchase);
- b) variable component of payment, which is remuneration to the manager of funds of the funded pension scheme for performance of investment plan, with its amount depends on the return of the pension plan.

Year 2020 brought further significant decrease in the fees. Introduction of low-cost passively managed pension funds has spurred price battle and the charges dropped further in 2020 to an average of 0.55% p.a.



Graph LV VII. Pillar II Pension Funds' Charges



Source: Own elaboration based on the funds' documentations, 2021

Pillar III – Voluntary private pensions

It cannot be said that such a positive trend seen in Pillar II charges is observed in Pillar III. Complex fee structure and high fees preserve in Latvian Pillar III even if slight decrease in custodian fees can be observed in Pillar III.

Voluntary private pension funds have typically lower level of transparency when it comes to fee policy. In most cases, only current fees and charges are disclosed. Historical data is almost impossible to track via publicly accessible sources. Charges of voluntary private pension funds for the last 5 years are presented in the table below. Administration cost, Fund Manager's Commission, and Custodian bank's commission are based on the assets under management. Funds managed by Nordea and Swedbank use mixed Administration costs, which are a combination of entry fees (fees on contributions paid) and ongoing charges (AuM based). CBL funds also use a performance fee if the fund returns outperform the benchmark (12-month RIGIBID).



Table LV 7. Voluntary Private Pension Funds' Fees and Charges				
Voluntary Private Pension Funds	Type of the Charges	Year 2020		
	Administration Cost	0.20% - 1.50%		
CBL Aktīvais	Fund Manager's Commission	0,008		
CDL AKTIVAIS	Custodian bank's commission	0.15%		
	Performance fee	10.00%		
	Administration Cost	0.20% - 1.50%		
CBL Aktīvais USD	Fund Manager's Commission	0,008		
CDL AKTIVAIS OSD	Custodian bank's commission	0.15%		
	Performance fee	10.00%		
	Administration Cost	0.20% - 1.50%		
CDI Cabalanastaia	Fund Manager's commission	0.70%		
CBL Sabalansētais	Custodian bank's commission	-		
	Performance fee	10.00%		
	Administration Cost	0.99%		
INVL KOMFORTS 53+	Fund Manager's commission	0.50%		
	Custodian bank's commission	0.00%		
	Administration Cost	0.99%		
INVL Klasika	Fund Manager's commission	0.50%		
	Custodian bank's commission	0.00%		
	Administration Cost	0.00%		
	Fund Manager's commission	0.00%		
INVL EKSTRA 47+	Custodian bank's commission	0.00%		
	Fee from contributions during the first year of participation	30.00%		
	Administration Cost	0.00%		
	Fund Manager's commission	0.00%		
INVL MAKSIMĀLAIS	Custodian bank's commission	0.00%		
16+	Fee from contributions during	0.00%		
	the first year of participation	0,3		
Luminor progresīvais	Administration Cost	0.45% per year from average assets.		
pensiju plāns	Fund Manager's commission	0.43%		
	Custodian bank's commission	0.07%		
Luminor	Administration Cost	0.45% per year from average assets.		
sabalansētais pensiju	Fund Manager's commission	0.43%		
plāns	Custodian bank's commission	0.07%		
	Administration Cost	1.50%		
"Pirmais Pensiju	Fund Manager's commission	1.30%		
Plāns"	Custodian bank's commission	0.20%		



HOED ALAS tall	Administration Cost	0.35% - 0.40%			
"SEB Aktīvais" pensiju plāns	Fund Manager's commission	0.35% - 0.40%			
perisiju platis	Custodian bank's commission	0.08%			
"SEB - Sabalansētais"	Administration Cost	0.12% - 0.85%			
pensiju plāns	Fund Manager's commission	0.35%-0.40%			
perisiju platis	Custodian bank's commission	0.08%			
Swedbank pensiju	Administration Cost	0.26%			
plāns	Fund Manager's commission	0.34%			
Dinamika+(USD)	Custodian bank's commission	0.09%			
Swadbank nanciiu	Administration Cost	0.26%			
Swedbank pensiju plāns Dinamika+100	Fund Manager's commission	0.34%			
pians binamika+100	Custodian bank's commission	0.09%			
Corredbenk nensiio	Administration Cost	0.26%			
Swedbank pensiju plāns Dinamika+60	Fund Manager's commission	0.34%			
pians binamika+00	Custodian bank's commission	0.09%			
Curadhank nanaiiu	Administration Cost	0.26%			
Swedbank pensiju plāns Stabilitāte+25	Fund Manager's commission	0.34%			
piaris stabilitate+25	Custodian bank's commission	0.09%			
Source: Own research based on http://www.manapensija.lv/en/3rd-pension-pillar/funds/ data and					

<u>Source</u>: Own research based on http://www.manapensija.lv/en/3rd-pension-pillar/funds/ data and supplementary pension funds' Prospectuses and Terms, 2021

When comparing the charges applied to the voluntary private pension funds and to state-funded pension funds, the level of charges in Pillar III pension funds are significantly higher and the structure of fees is more complex. This limits the overall understanding of the impact of fees on the pension savings for an average saver. The total cost ratio of Pillar III funds starts at 0.8% p.a. and can reach as high as 3% p.a. on managed assets.

There are neither limitations nor caps on fees in the law. The legislative provisions only indicate that at least the following should be disclosed: general information on maximum fees and charges applied, procedures for covering the expenses of the scheme, information regarding maximum payments to the management of the pension scheme and to the manager of funds, and the amount of remuneration to be paid out to the holder of funds, as well as the procedures by which pension scheme participants shall be informed regarding such pay-outs of the scheme.

Taxation

Pillar II - State Funded Pensions

Latvia is applying an "EET" taxation regime for Pillar II with some specifications (deductions) to the payout regime taxation, where generally the "T" regime is applied for the pay-out phase in retirement.



Taxation of contributions

Contributions paid to the state funded pension scheme are made via social insurance contributions redirection. As such, these contributions are personal income tax deductible items, so the contributions are not subject to additional personal taxation.

Taxation of the Fund

The Corporate Income tax rate in Latvia is 15%. However, income or profits of the fund (investment fund as a legal entity) are not subject to Latvian corporate income tax at the fund level. Latvia applies a general principle for all investment and savings-based schemes to levy the income taxation on the final beneficiaries and not on the investment vehicles.

Taxation of pension benefits

Latvia has one of the lowest levels of income redistribution among EU countries. Personal income tax rate is 23% and the pension benefits paid from the NDC PAYG scheme (Pillar I) and state-funded pension scheme (Pillar II) are considered taxable income. As such, pension benefits are subject to personal income tax. Latvia applies a non-taxable minimum, which is recalculated and announced every year by Cabinet regulation.

Pillar III – Voluntary private pensions

Latvian tax legislation stipulates the use of the "EET" regime (like Pillar II) for voluntary private pension schemes as well, where the contribution by individuals is treated in a slightly different way. Payments made to private pension funds established in accordance with the Republic of Latvia Law on Private Pension Funds or to pension funds registered in another Member State of the European Union or the European Economic Area State shall be deducted from the amount of annual taxable income, provided that such payments do not exceed 10 % of the person's annual taxable income. However, there is a limit on total income tax base deductible payments. The total of donations and gifts, payments into private pension funds, insurance premium payments and purchase costs of investment certificates of investment funds may not exceed 20% of the amount of the payer's taxable income.

Pension Returns

Pillar II - State Funded Pensions

Pension funds' performance is closely tied to the portfolio structure defined by an investment strategy (as well as investment restrictions and regulations) applied by a fund manager. Investment regulations differ, depending on whether pension plans are managed by the State Treasury or by private companies. The State Treasury is only allowed to invest in Latvian government securities, bank deposits, mortgage bonds and deposit certificates. Moreover, it can only invest in financial



instruments denominated in the national currency. In contrast, private managers are allowed to invest in a much broader range of financial instruments. The main investment limits include the following:

- 35% for securities guaranteed by a state or international financial institution;
- 5% for securities issued or guaranteed by a local government;
- 10% for securities of a single issuer, except government securities; for deposits at one credit institution (investments in debt and capital securities of the same credit institution and derivative financial instruments may not exceed 15%); and for securities issued by one commercial company (or group of commercial companies);
- 20% for investments in non-listed securities;
- 5% for investments in a single fund (10% of the net assets of the investment fund).

There is no maximum limit for international investments so long as pension funds invest in securities listed on stock exchanges in the Baltics, other EU member states, or the European Free Trade Area. However, the law stipulates a 70% currency matching rule. There is also a 10% limit for each non-matching currency. Investments in real estate, loans, and self-investment are not permitted.

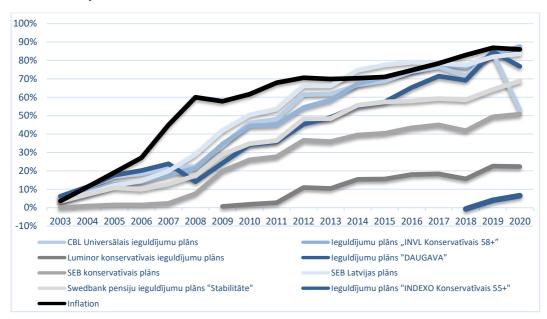
All data presented on the pension funds' returns are presented in net values, i.e., after all fees charged to the fund portfolio. The graphs contain also inflation on an annual and cumulative basis.

Pension reform introduced Pillar II in July 2001. However, pension funds started their effective operation from January 2003, so only data for the period from 2003 to 2019 is presented.

Conservative mandatory pension funds' performance on a cumulative basis compared to the inflation is presented below.



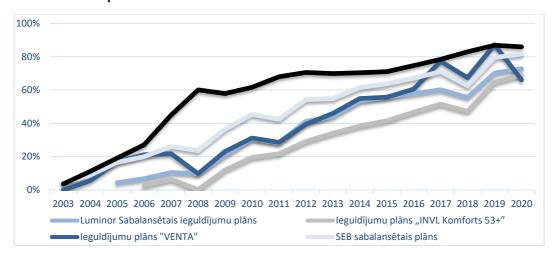
Graph LV VIII. Conservative Pension Funds' Cumulative Performance



<u>Source:</u> Own calculation based on http://www.manapensija.lv/en/2nd-pension-pillar/statistics/ and supplementary pension funds' Prospectuses and Terms, 2021

Balanced mandatory pension funds' performance on a cumulative basis compared to the inflation is presented below.

Graph LV IX. Balanced Pension Funds' Cumulative Performance



<u>Source:</u> Own calculation based on http://www.manapensija.lv/en/2nd-pension-pillar/statistics/ and supplementary pension funds' Prospectuses and Terms, 2021



Active pension funds' performance on a cumulative basis compared to the inflation is presented in the graphs below.

110% 80% 50% 20% -10% 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 ■leguldījumu plāns "INVL Ekstra 47+" CBL Aktīvais ieguldījumu plāns Luminor aktīvais ieguldījumu plāns leguldījumu plāns "GAUJA" SEB Eiropas plāns SEB aktīvais plāns •leguldījumu plāns "INDEXO Izaugsme 47-57" ABLV ACTIVE INVESTMENT PLAN Swedbank pensiju ieguldījumu plāns "Dinamika" Inflation

Graph LV X. Active 50 Pension Funds' Cumulative Performance

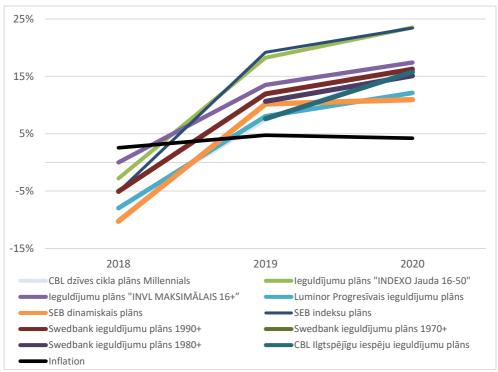
<u>Source:</u> Own calculation based on http://www.manapensija.lv/en/2nd-pension-pillar/statistics/ and supplementary pension funds' Prospectuses and Terms, 2021
It should be noted that only few of the actively managed pensions were able to "beat" the inflation, and

It should be noted that only few of the actively managed pensions were able to "beat" the inflation, and thus able to deliver the positive real returns to the savers.

In 2018, the Active 75 pension funds started operating on the market that invests major proportion of assets into the equities. Their cumulative performance is presented below.



Graph LV XI. Active 75 Pension Funds' Cumulative Performance



<u>Source:</u> Own calculation based on http://www.manapensija.lv/en/2nd-pension-pillar/statistics/ and supplementary pension funds' Prospectuses and Terms, 2021

Nominal as well as real returns of state funded pension funds in Latvia weighted by AuM are presented in a summary table below.



Table L\	/ 8. Nominal and	Real Retu	rns of St	tate Funded Pensic	n Funds in	Latvia
2003		4.86%			1.28%	
2004		5.69%			-1.65%	
2005		8.93%			1.80%	
2006		3.91%			-2.83%	
2007		3.51%			-10.52%	
2008		-10.04%			-20.44%	
2009		13.51%			14.88%	
2010	Nominal return	8.45%		Real return after	6.05%	
2011	after charges,	-2.10%	3.67%	charges and	-5.98%	-0.07%
2012	before inflation	9.06%	3.07%	inflation and	7.47%	-0.07%
2013	and taxes	2.32%		before taxes	2.72%	
2014		5.25%			4.97%	
2015		1.93%			1.53%	
2016		2.02%			-0.08%	
2017		3.23%			1.07%	
2018		-4.09%			-6.64%	
2019		10.79%			8.65%	
2020		1.44%			1.94%	

<u>Source:</u> Own calculation based on Manapensija data (http://www.manapensija.lv/en/2nd-pension-pillar/statistics/), 2021

Another view on the performance of the Pillar II pension funds allowing the comparison across EU pension schemes is using the holding period approach.

Holding Period	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	1.44%	1.94%
3-years	2.53%	1.12%
5-years	2.57%	0.87%
7-year	2.86%	1.54%
10-years	2.90%	1.45%
Since inception	3.67%	-0.07%

<u>Source:</u> Own calculation based on Manapensija data (http://www.manapensija.lv/en/2nd-pension-pillar/statistics/), 2021

Pillar III – Voluntary private pensions

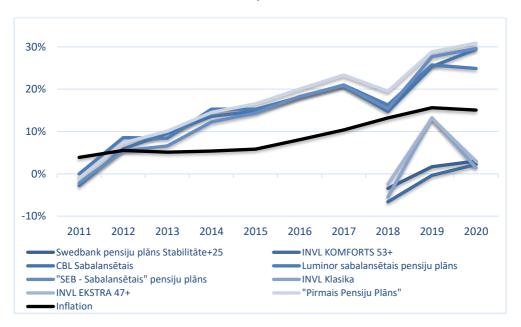
The analysis of voluntary pension funds' performance uses annual approaches as well as cumulative approaches, peer comparison and inflation.



Investment rules for private pension funds are similar to those for state-funded schemes but are more flexible. For example, investment in real estate is permitted (with a limit of 15%), the currency matching rule is only 30%, and limits for some asset classes are higher. Considering the structure of voluntary pension funds' portfolios in Latvia, a larger proportion is invested in structured financial products (mainly equity based UCITs funds) and direct investment in equities and bonds is decreasing.

Due to the lack of publicly available data before 2011, the performance of voluntary pension funds on an annual and cumulative basis starting from the year 2011 is presented in the charts below.

Graph LV XII. Balanced and conservative voluntary open and closed pension funds' cumulative performance



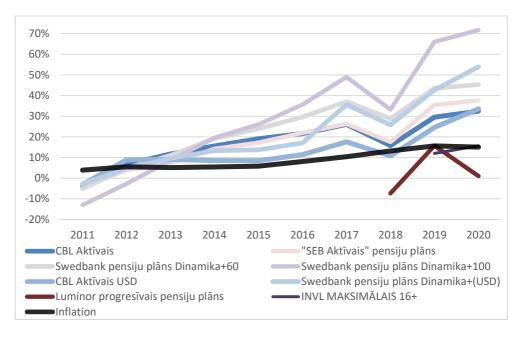
<u>Source:</u> Own calculation based on Manapensija data (http://www.manapensija.lv/en/3rd-pension-pillar/history-and-statistics/), 2021

Contrary to balanced Pillar II funds, balanced Pillar III funds all provide positive real returns (outperform inflation). Balanced Pillar III funds have a more aggressive portfolio structure. However, short historical data does not allow for a comprehensive conclusion to be drawn. There is a backward pressure of charges which might reverse the trend in future.

The performance of Latvian active voluntary private pension funds differs significantly, and the dispersion of annual returns and cumulative returns is higher. Performance of analyzed voluntary private pension funds on a cumulative basis is presented on the chart below.



Graph LV XIII. Active 50 & Active 75 voluntary pension funds' cumulative performance



<u>Source:</u> Own calculation based on Manapensija data (http://www.manapensija.lv/en/3rd-pension-pillar/history-and-statistics/), 2021

Nominal as well as real returns of voluntary pension funds in Latvia weighted by AuM are presented in a summary table below.

	Table LV 9. Nom	inal and Re	eal Return	s of Voluntary p	ension fu	nds in Latvia
2011		-2.70%			-6.58%	
2012		8.77%		7.18%		
2013		3.08%			3.48%	
2014	Nominal return	5.56%		Real return	5.29%	
2015	after charges,	2.28%	3.03%	after charges and inflation	1.87%	1.58%
2016	before inflation	3.35%	3.03%	and before	1.24%	1.36%
2017	and taxes	3.62%		taxes	1.46%	
2018		-5.12%			-7.67%	
2019		10.80%			8.66%	
2020		1.64%			2.14%	

<u>Source:</u> Own calculation based on Manapensija data (http://www.manapensija.lv/en/3rd-pension-pillar/history-and-statistics/), 2021



Additionally, we provide data on Pillar III (Voluntary) pension funds' performance according to various holding periods.

Holding Period	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	1.64%	2.14%
3-years	2.23%	0.82%
5-years	2.73%	1.03%
7-year	3.06%	1.75%
10-years	3.03%	1.58%
Since inception	3.03%	1.58%

Source: Own calculation based on Manapensija data, 2021

Conclusions

Latvia has managed to build a sustainable pension system over the last decade with impressive growth in Pillar II funds. Acceptance of voluntary pension savings in Pillar III is still weak, but this trend has changed after the financial crisis. Pillar III pension funds have enjoyed high inflow of new contributions despite rather weak performance and high fees.

Latvian Pillar II experienced further drop in charges in 2019 as well as 2020 driven by a competition from low-cost passively managed funds. Pillar III funds managers enjoy smaller decrease in charges, but Pillar III charges remain relatively high. Delivered real returns on the other hand are negative. Most of the Pillar II pension funds were not able to beat the inflation. One of the reasons is also the relatively conservative risk/return profile of most funds. Pillar III vehicles in Latvia suffer not only from significantly high fees charged by fund managers, but also from low transparency.

Pension fund managers of both pillars have started to prefer packaged investment products (investment funds) and limit their engagement in direct investments. Thus, the question of potential future returns (when using financial intermediaries multiplied by high fee policy) in both schemes should be raised.

Policy Recommendations

Latvia has improved significantly its mandatory part of funded pension system. Together with its NDC scheme for pay-as-you-go pillar, mandatory funded part as well as NDC part form a well-designed pension system that motivates individuals to contribute as there is a clear connection between paid contributions and expected pension benefits. However, voluntary part of the pension system still suffers from very complicated fee structure, high fees and low transparency.

These limits, despite a generous fiscal stimulus, larger participation in voluntary pension scheme. Regulators should seek for modern fee policies that would on one hand decrease the fee structure



and on the other hand introduce success fee tied to the market benchmark. Applying high-water mark principle could limit the risk appetite of asset managers as they will start to prefer low-risk investments where constant fee revenue could be expected. If the benchmarking principle is applied, where the asset manager is rewarded by higher fee when the market benchmark has been outperformed and penalized by lower fees if the fund performance is lower than the market benchmark, savers could benefit more and start trusting the voluntary pension providers on a larger scale.

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Imprint

Editor and Publisher

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